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CITY DOCUMENTS

OF THE

CITY OF LOWELL,

1866-7.



LOWELL, MASS.

STONE & HUSE, PRINTERS, COURIER OFFICE, 21 CENTRAL STREET.

1867.

Lowell City Library.

Class. 1

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3. Forty-first Annual Report of the School Committee of the City of Lowell, together with the Third Annual Report of the Superintendent of Public Schools, for 1866.
4. The Auditor's Thirty-first Annual Report of the Receipts and Expenditures of the City of Lowell, together with the Treasurer's Account, for the Financial Year ending December 31, 1866.
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THE
INAUGURAL ADDRESS
OF
HIS HONOR
GEORGE F. RICHARDSON,
MAYOR OF THE CITY OF LOWELL,
TO THE
TWO BRANCHES OF THE CITY COUNCIL.

JANUARY 7, 1867.



LOWELL :

STONE & HUSE, PRINTERS, DAILY COURIER OFFICE, 21 CENTRAL STREET.

1867.

CITY OF LOWELL.

IN COMMON COUNCIL, January 7th, 1867.

ORDERED, if the Board of Aldermen concur, That the Mayor be requested to cause his Address to be printed for distribution.

In Common Council, January 7th, 1867.

Read and adopted; sent up for concurrence.

GEO. GARDNER, *C. C. C.*

In Board of Aldermen, January 7th, 1867.

Read and adopted in concurrence.

JOHN H. McALVIN, *City Clerk.*

A D D R E S S .

Gentlemen of the Board of Aldermen

and of the Common Council:

Invoking for ourselves a continuance of the Divine favor which has been vouchsafed to our predecessors, we assemble to-day to assume the responsibilities of the several positions to which we have been elevated by the partiality of our fellow-citizens; and while I am deeply sensible of the difficulties which environ my own, I am encouraged to encounter them by the reflection that your wisdom will enlighten and your counsels support me.

We should upon this occasion devoutly acknowledge our gratitude for the general health and prosperity which have blessed our city during the past year. That terrible epidemic, which has proved so devastating in other countries, and at one time threatened our own, has been averted, and the financial revulsion, which it was feared would attend the close of our gigantic struggle for national life and honor, has been postponed, although we cannot now assure ourselves that we shall wholly escape it. In the meantime, the last of our surviving heroes, the record of whose valor has illumined the page of our nation's history, have returned to their homes in our midst, and, mingling again with us in the occupations of peaceful

life, are contributing by their industry and influence to the prosperity of the country which their courage helped to save. May they ever receive the just rewards their vast achievements merit. A grateful people will never be unmindful of their obligations to the living; and let us, as the representatives of the citizens of Lowell, not forget a sacred duty which we owe the dead. Inspired by the loftiest emotions, they responded to the call of duty, and, sundering domestic ties, went forth in the full vigor of manly life to battle under their country's flag for the cause of civil liberty, justice and equality. No applauding public, with civic honors and glittering pageants, has welcomed their return. From the prison-pens of an inhuman foe, or the field wet with their blood, they passed, in solemn grandeur, to their last earthly resting-place, and now sleep the sleep that knows no waking far from friends and kindred and home,—too often in unknown graves. We, who were living witnesses of the contest in which they fell, who knew full well the mighty issues which it involved, and who so often exulted over victories achieved by them and their compatriots in arms, appreciate their gallant and incomparable services. Be ours then the task, by granite column or marble shaft, to acknowledge our gratitude, and commemorate their virtues, that coming generations, as they gather around its base and read on its entablature the record of heroic deeds, may be inspired to a loftier patriotism, and taught that when dangers threaten and their country calls for aid

“The path of duty is the way to glory.”

PRESENTATION OF A STATUE.

In October last, our public-spirited fellow-citizen, Dr. James C. Ayer, presented the city a bronze statue representing Victory, designed by the celebrated sculptor, Rauch. The figure is that of a female, draped, holding forth in one hand the laurel wreath of victory, while the other grasps "the harvest sheaf of peace." It is now casting in Prussia, and may be expected to arrive here early in the spring. In accordance with the wish of the donor, it is to be placed in the same enclosure in which rest the remains of our martyred heroes, Ladd and Whitney, where it will appropriately mark the final triumph of that majestic contest for which they so early gave up their lives.

While expressing in this public manner our grateful acknowledgements for this noble and munificent gift, let us indulge the hope that it may be the means of inducing others to contribute, in a similar way, to the adornment of our city.

STATE AID.

The whole amount paid out, in the past year, in aid of the families of volunteers, under the earlier acts of the Legislature for their relief, was \$5,512.00. During the war nine thousand dollars was sometimes required in a single month for this purpose. The payments on this account have now substantially ceased, but our Commonwealth, not unmindful of its duty, in April last, made provision for a continuance of State aid, as it is termed, to "disabled soldiers and sailors, and their families, and

to the families of the slain." Since that time there have been 522 applicants for assistance. Of these, 167 represented the families of those who had enlisted to the credit of Lowell, and were killed in action or died of wounds or disease; 59 represented the families of those who had enlisted to the credit of other towns, and were killed in action, or died of wounds or disease; 153 had enlisted to the credit of Lowell, and were disabled by wounds or disease; 43 had enlisted to the credit of other towns, and were disabled by wounds or disease, while 57 applications were rejected, and 43 await your investigation.

The amount expended and charged to this account was \$35,712.00, which sum will be re-imbursed to the city by the State, near the close of the present year.

SCHOOLS.

In a form of government like our own, where the people are the supreme rulers, education is the main pillar of the political fabric, and on it rests the social and moral condition of the nation. The framers of the constitution of our Commonwealth, believing with the ancient Greek philosopher that "the fate of empires depends on the education of youth," declared in that admirable instrument, that "wisdom and knowledge diffused generally among the body of the people were necessary for the preservation of their rights and liberties;" and subsequent legislators, faithfully reflecting an enlightened public sentiment, have not been unmindful of their duties in this important respect.

In view, then, of the magnitude of the subject, it very properly occupies our attention on this occasion, although we are aware that almost the entire control and management of our schools are entrusted to another independent body elected by the citizens. The City Council makes an annual appropriation for educational purposes, which may or may not influence the School Committee in its expenditures. It builds and keeps in repair the houses in which the schools are taught, and establishes the office of Superintendent of Public Schools, in regard to the necessity for which I am aware a wide difference of opinion formerly existed in our community; but a better understanding of the subject, and a knowledge of the faithful manner in which the duties of that position have been performed, have unquestionably done much to dissipate the objections heretofore entertained. While, therefore, our sphere of action is extremely limited, it will be our pleasure to contribute, in whatever way we may, to the success and prosperity of our institutions of learning.

Our schools now furnish instruction to more than five thousand pupils, and the amount appropriated for this purpose last year, including the balance on hand January 1st, 1866, was \$82,061.77. Expenditures, \$66,398.31; leaving an undrawn balance of \$15,663.46.

SCHOOL HOUSES.

Our school houses are in excellent condition, with the exception of the High School building, and that we

shall undoubtedly soon be called upon to re-model and make more suitable for the purposes for which it is used. Plans and estimates have already been prepared, and unless they require a very large expenditure, there would seem to be no reason why the same conveniences should be denied to the children who are seeking instruction in this school, which have long since been afforded to those who attend our Grammar Schools.

The amount expended and charged to this appropriation in 1866, was \$5,495.90, and there is a balance now to its credit of \$1,316.69.

CITY LIBRARY.

An important auxiliary in the matter of education, is our City Library, which now contains 12,680 volumes, and during the past year had 1,397 subscribers—a larger number than ever before.

When we consider that during that time over 50,000 books were taken out, the reading of which was not of course confined to the subscribers alone, we cannot fail to be impressed by the powerful influence it exerts on the minds and morals of the people,—an influence which we know would be immeasurably increased by removing the Library to more convenient and easily accessible rooms, and by making it free to all. The time, however, may not have come for these important changes, yet much good may still be accomplished by a more liberal expenditure in the purchase of works of permanent value, and

by continuing to select as members of the board of directors those who possess the proper qualifications, and are willing to devote the time necessary to a faithful discharge of the duties of the position.

At the beginning of last year there was a balance on hand of \$468.80, the appropriation was \$800, and \$706.50 was received from subscribers, making a total of \$2,073.50; of which sum \$800 was paid as salary to the Librarian, \$447.35 expended for books, \$258.10 for binding, &c.—leaving undrawn \$568.05.

INTRODUCTION OF WATER.

By an act of the legislature, passed in May, 1855, and accepted by the citizens on the 16th of the following July, authority was given to bring “sufficient water into the city for the use of the inhabitants thereof, for the extinguishment of fires, domestic and other purposes.” No action, however, was taken by the then City Council in reference to the subject, and although it has been subsequently twice under consideration, no definite result was reached, until last year, when a joint special committee, after a careful investigation, in which they were aided by a competent hydraulic engineer, made a comprehensive report, and recommended the passage of a resolution which provided for the introduction of water from Merrimack River.

The City Council, in view of the magnitude and probable cost of the undertaking, very properly asked

instruction from their constituents as to the propriety of passing the resolution, and they decided on the eighth of October last, by a vote of 848 yeas to 1083 nays against it. The subject was, however, immediately revived, and the question submitted, being somewhat changed and made more general in its character, was again passed upon at the last November election, and in a total poll of 2,985 votes it appeared that there was a majority of 667 averse to the enterprise.

Although it is very apparent from these facts that the people are unwilling at this time to incur the great expense incident to the general distribution of water through our city, for all the purposes contemplated in the foregoing act, it will become equally clear to all who investigate the subject, that there is a great necessity for some improvements in the present arrangement for supplying water to extinguish fires; and while I would recommend the appointment of a Committee to confer with the Proprietors of the Locks and Canals on Merrimack River—with a view to such alterations as are deemed expedient, in the existing contract, by which the city obtains water from their reservoir—I would respectfully call your attention to the entire inadequacy, for our present wants, of some of the water-pipes of the city which connect with those of that corporation. The main pipe, which runs from Bridge Street through Merrimack Street, is twelve inches in diameter, and undoubtedly of sufficient capacity, with the aid of the canals and the mill force-pumps, upon which we might rely in case of a great conflagration, to insure the protection of one part of the

city, while the pipe from the hydrant on Central Street through Middlesex Street, is only six inches in diameter, and the one which is laid in Gorham Street only four. As our steam fire engines draw their supply through four-inch hose, it is very apparent that another and populous portion of the city, with inferior facilities for obtaining water from other sources, is very poorly protected against the devouring element. The last City Council, in November, passed a resolution which provided for the relaying of the Middlesex Street pipe, but it being then late in the season, no action was taken to carry it into effect. The proprieties of this occasion will not justify me in dwelling longer on this subject. I leave it in your hands, confident that it will receive the attention which its importance demands.

FIRE DEPARTMENT.

The fire department has maintained, during the past year, its high and well deserved reputation for efficiency. Its members have been prompt, energetic and faithful in the discharge of their difficult and oftentimes dangerous duties. They were called out seventy-two times. The value of the property damaged or destroyed by fire is estimated at \$255,307.00, and the insurance thereon was \$196,456.00.

The changes made necessary by the adoption of steam as an agent in the extinguishment of fires, have largely increased, for the time being, the expenditures. A new steamer has been purchased, the one procured in 1865

paid for, another repaired at considerable expense, and four horses have been bought within the past year. The building on Middle Street, intended for the accominodation of two steamers and the horses necessary for their use, has been completed, and a stable erected on Middlesex Street.

The city now possesses four steamers, one of which is held in reserve to be used in case of emergency, three hand engines, one hook and ladder, one hydrant, and several hose carriages, besides the three hand engines in the charge of volunteer companies—all of which are manned by firemen who are equal to any emergency.

I need not recall to your attention that almost unparalleled conflagration, which on the last anniversary of our national independence laid waste so large a portion of one of our fairest New England cities, to impress upon your minds the importance of a well organized fire department; every one must appreciate its absolute necessity for the preservation of life and property, and I am sure that no effort will be spared, on your part, to maintain the present efficiency of our own.

Amount appropriated in 1866, with the balance on hand at the beginning of the year, was \$51,341.40; expended, \$49,717.92; balance undrawn, \$1,623.48.

POLICE.

The authority of the Mayor and Aldermen of our city to select Police Officers is wholly derived from a provision

of the General Statutes, which extends to them the powers of selectmen of towns, and they have the right to appoint these officers, who "hold office during the pleasure of the selectmen by whom they were appointed." When we consider the importance of the duties which devolve upon the police, it becomes of the highest consequence to decide when their term of service expires. I am aware that it has been the uniform practice to construe this statute to mean that they continued in office until others were chosen in their stead, which frequently did not occur until several weeks after the inauguration of a new city government; yet a careful consideration of the whole subject, which it would be out of place here to review, leads me inevitably to the conclusion that their powers and functions cease at the close of the municipal year in which they were appointed. That being the case, it is incumbent upon me to nominate these officers at once, or the city will be for a time without their indispensable services. In the one case any errors or mistakes as to the character or capabilities of the appointees can be easily rectified; in the other, irreparable injury might ensue. I would, however, recommend that application be made to the Legislature for an alteration of the law so that Police officers may hold their office during good behavior, which would not only remedy the existing defects, but also add greatly to the efficiency of the department. I have no doubt that the majority of our present force are as faithful as any men can be who retain their positions by an uncertain and indefinite tenure; yet let its members feel that their continuance in office depends not upon caprice,

or the result of a municipal election, but upon their discharging all the duties which are by law imposed upon them, impartially, and without fear or favor, and we should witness very marked improvement.

The department now consists of a Marshal, four Day Police, and twenty-three Night Police.

Expenditures for 1866, \$27,358.14, and there is an undrawn balance to the credit of this account of \$4,730.40.

SALE OF INTOXICATING LIQUORS.

The manifold evils which flow from the improper use of spirituous liquors are so apparent to every candid person, that the duty of arresting them must impress itself strongly on the minds of all who are entrusted with grave responsibilities, such as rest upon us. The subject has for many years engrossed the attention of our legislators, and in addition to the numerous enactments for the suppression of the sale of intoxicating liquors, a law was passed in 1865 which provided for the appointment of State constables, who were "to use their utmost endeavors to repress and prevent crime by the suppression of liquor shops."

Since the efficient deputy constable for Lowell and adjacent towns came into office, I am informed that one hundred and eighty-nine prosecutions have been made, and very many places where intoxicating liquors were sold, closed. Notwithstanding our Commonwealth has thus, as it were, assumed to herself the execution of the laws upon

this subject, it will nevertheless be our duty, and that of our police, to render every possible assistance in the premises.

ROADS AND BRIDGES.

There has been expended during the past year, on account of Roads and Bridges the sum of \$28,499.12.

The amount seems large, and is in fact greater than ever before required in a similar period for ordinary repairs, yet when we consider the high prices of labor and materials and the excellent condition in which our streets have been maintained, we can have no cause for complaint. 28,450 square yards of streets have been macadamized, and 5,951 square yards of gutters paved. The time has been when the readiness of juries to render verdicts against our city on suits brought in consequence of trivial defects in the highways, especially during the winter months, when it was morally impossible that the authorities could either guard against or remedy them, might well have discouraged any attempt to comply with the law requiring our streets to be made "safe and convenient for travellers," but recent more liberal interpretations of the statutes upon this subject, lead us to hope that with moderate yearly expenditures, we may be able to keep the public thoroughfares in suitable repair, and put an end to litigation of this vexatious character.

With the single exception of the structure which spans Concord River on East Merrimack Street, our bridges are in good condition; that, however, was not properly built,

and since the tracks of the horse railroad have been laid over it, the truss which runs through its centre has rendered it exceedingly inconvenient and unsafe for public travel. I would advise its early reconstruction.

The balance to the credit of this appropriation is \$5,447.77.

SHADE AND ORNAMENTAL TREES.

I desire, in this connection, to call attention to the necessity of protecting the shade and ornamental trees which beautify and adorn our streets. In many instances they have been sadly neglected, the boxes placed around them have gone to decay, and the life of the trees has been eaten away by horses, whose owners apparently imagined that they were intended for tying-posts. The result is that some of our noblest elms are now as dead as the ordinance made for their preservation.

LIGHTING STREETS AND PUBLIC BUILDINGS.

It is estimated that the length of our streets which have been accepted by the City Council, and of those which we are obliged to keep in repair, is about fifty miles; and since we have 258 gas lights and 84 oil and fluid lamps. it follows that their average distance apart is 772 feet. As many of them are, however, placed at or near the crossings, where they illuminate several streets, and the old county roads, so called, have few or no lights

upon them, it is evident that these figures do not furnish entirely reliable data on which to base an opinion as to the adequacy of the present arrangements for lighting our public thoroughfares, but they may properly be referred to, and in connection with our own experience in this matter, will convince us, I think, that there exists a necessity—for the safety and convenience of the citizens, as well as to aid our police in detecting and preventing crime—for additional street lights. I have, therefore, called your attention to the subject in order that such improvements might be made as shall seem to you judicious and proper. Thirty-eight lights have been added during the past year.

The expenditures for 1866 were \$9,387.76, and the undrawn balance is \$3,571.42.

THE POOR.

Few more important or delicate duties devolve upon us than those which spring from our moral and legal obligation to render assistance to those unfortunate persons in our midst, who have been, either through their own fault, or by circumstances which they could not control, reduced to penury and want, and none, I might add, more difficult faithfully to discharge. The benign statutes of our Commonwealth point out the different classes of paupers, and designate, with sufficient accuracy, who shall be held liable for their support. It would seem, then, that following the strict letter of the law, we

might decide at once that State paupers should be sent to the public institutions provided for their reception, while those who are chargeable upon the city should be cared for in our own Almshouse. Yet, while this course would relieve us from much embarrassment, it would neither be justifiable in a moral nor economical point of view; for those who are taken to either of the places named, are very apt to lose their ambition and desire to take care of themselves, and become confirmed paupers to the end of their days. It will, therefore, be necessary to investigate patiently and thoroughly each particular application for relief, in order that those whose poverty is the result of temporary causes, may, by a little judicious assistance, be enabled to weather the momentary storm and become not only self-supporting but worthy members of society, thus lessening pauperism and the public burthens incident thereto.

The Almshouse has been very efficiently managed for several years by its present excellent superintendent. It now has ninety-eight inmates, of which number fifty are paupers and forty-eight juvenile offenders.

The amount expended in 1866, for the poor, including \$127.37 paid on account of persons having no legal settlement here, and \$801.75 for out-door relief, was \$15,248.96, and the balance to the credit of this appropriation is \$2,677.08.

REFORM SCHOOL.

I commend to your fostering care the Reform School connected with the Almshouse, to which children of both

sexes are sent by the Justice of our Police Court for truancy and other more heinous offences. Removed from the evil influences which surrounded them when at large, they there receive such mental and moral training as will happily effect their future lives.

The number in the school, January 1st, 1865, was 42—69 have been admitted during the year, 63 discharged, and 48 remain.

No separate account is kept of the expenses of this Institution, but they are inconsiderable in comparison with the good results it accomplishes.

SEWERS AND DRAINS.

Our sewers and drains were so thoroughly constructed that the annual expense of keeping them in repair has been very small. No new ones have been built during the year. Expenditures in 1866. \$580.15; balance, \$416.57.

COMMONS.

Amount appropriated, with the undrawn balance of 1866, \$1,236.75; expended. \$1,216.33; balance on hand, \$20.42.

PRINTING AND ADVERTISING.

Appropriation, \$3,205.58, in which sum is included the balance to the credit of this account at the commencement of the last year. Expenditures, \$2,313.09. Balance, \$892.49.

FINANCE.

The whole amount received into the Treasury during the past year, including the balance on hand January 1, 1866, was	\$604,071.74
The amount paid out,	480,902.43

Leaving a cash balance of \$123,169.31

There is due from the Commonwealth, for money paid as

State aid

In 1864, balance,	5,135.40
In 1865, balance,	2,272.00
In 1866,	35,760.00
For rent of Armories,	600.00
For burial of State Paupers,	265.00
For Militia Bounty,	2,091.00
For balance of Corporation Tax,	1,595.25

Whole amount due from the State, \$ 47,718.65

There is also due the City on sundry accounts, 3,374.58

The amount of uncollected taxes for 1866, is 4,101.72

There is due from the City :

As Permanent Loan,	452,000.00
Bills on draft, unpaid,	15,683.27
Militia Bounty, 1862,	55.00

Total, \$467,738.27

Deducting from this sum

The cash on hand, \$123,169.31

The amount due from the State, 47,718.65

And the amount probably collectable

from unpaid taxes of 1866, and

from sundry accounts, estimated at 3,300.00

174,187.96

And the balance of the City's indebtedness is . . . \$293,550.31

In September next \$20,000 of our permanent loan becomes due.

At the beginning of the rebellion, the permanent debt of the city was \$160,000. Since that time there has been paid for bounties, and incidental expenses properly chargeable to the war, \$293,215.89. The city has also paid its proportion of the damages and cost for taking Central Bridge, \$20,658.57, and has rebuilt the same at an expense of \$33,818.33.

While, then, our present indebtedness is only \$133,550.31 larger than it was in 1861, it appears that we have paid out in the meantime for extraordinary expenditures \$347,692.79 — the difference (\$214,142.48) having been assessed and paid by taxation.

When we reflect that the city of Lowell furnished 5,022 men to aid in putting down the rebellion, and had to her credit a considerable surplus at its close, and take into account the greatly increased expenditures in every department caused by the war, we acknowledge with gratitude the ability and fidelity with which those to whom was intrusted the management of our municipal affairs during that trying period discharged their arduous duties.

I have thus, gentlemen, called your attention to such matters as seemed proper subjects for consideration on this occasion. From the reports of the various departments soon to be laid before you, you will become better informed of the present condition of the municipal affairs of our city. Their perusal will remind us of the fidelity

of our predecessors, and of the magnitude, importance, and variety of the duties we have assumed. Let us hope that we may prove equal to our tasks; that our deliberations may be harmoniously conducted and contribute to the advancement of the best interests of the citizens whom we represent.

MUNICIPAL REGISTER:

CONTAINING

RULES AND ORDERS

OF THE

CITY COUNCIL,

AND A LIST OF THE

GOVERNMENT AND OFFICERS

OF THE

CITY OF LOWELL,

FOR 1867.



LOWELL, MASS:

STONE & HUSE, PRINTERS, COURIER OFFICE, NO. 21 CENTRAL STREET.

1867.

JOINT RULES AND ORDERS

OF THE

CITY COUNCIL.

1. At the first or second meeting of the City Council, the following Joint Standing Committees shall be appointed, viz:

A COMMITTEE ON ACCOUNTS,
A COMMITTEE ON CLAIMS,
A COMMITTEE ON COMMONS,
A COMMITTEE ON FINANCE,
A COMMITTEE ON FIRE DEPARTMENT,
A COMMITTEE ON LANDS AND BUILDINGS,
A COMMITTEE ON MILITARY AFFAIRS,
A COMMITTEE ON PRINTING,
A COMMITTEE ON PUBLIC INSTRUCTION,
A COMMITTEE ON SEWERS AND DRAINS,
A COMMITTEE ON STREETS.

And the members of the Board of Aldermen, and of the Common Council, who shall constitute the Joint Standing Committees, shall be chosen or appointed by their respective Boards. Each of said Committees, except the Committee on Military Affairs, which shall be composed of the Mayor, two Aldermen and six members of the Common Council, one from each ward, shall consist of two Aldermen and three members of the Common Council, except when it is otherwise ordered.

2. All by-laws passed by the City Council shall be termed Ordinances; and the enacting style, which shall be but once recited in each Ordinance, shall be, "Be it ordained by the City Council of the City of Lowell, as follows."

3. In all votes in which either or both branches of the City Council express anything by way of *command*, the form of expression shall be

“ Ordered ” (except only in the case of Ordinances) ; and whenever either branch or both branches express *opinions, principles, facts or purposes*, the form of expression shall be “ Resolved.” Provided, however, that the appropriation of money to any amount exceeding fifty dollars shall be by Resolution.

4. Each Board shall transmit to the other all papers on which any Ordinance, Joint Resolution or Order shall be founded; and all papers on their passage between the two Boards shall be under the signature of their respective Clerks, except Ordinances and Joint Resolutions in their last stage, which shall be signed by the presiding officers.

5. The titles to all Ordinances and Joint Resolutions shall be prefixed upon their introduction.

6. Every Ordinance shall have as many readings in each Board as the rules of such Board require, after which the question shall be on passing the same to be enrolled; and when the same shall have passed to be enrolled, it shall be sent to the other Board for concurrence; and when such Ordinance shall have so passed to be enrolled by each board, the same shall be enrolled by the Clerk of the Common Council, and examined by a Committee of that Board; and, on being found by said Committee to be correctly enrolled, the same shall be reported to the Common Council, when the question shall be on passing the same to be ordained; and when said Ordinance shall have so passed to be ordained, it shall be signed by the President of the Common Council, and sent to the other Board, when a like examination shall be made by a Committee of that Board, and if found correctly enrolled, the same shall be reported to the Board, and the question shall be on passing the same to be ordained; and when the same shall have passed to be ordained, it shall be signed by the Mayor.

7. Every Joint Resolution shall have as many readings in each Board as the rules of such Board require; after which the question shall be on passing the same; and when the same shall have passed, it shall be sent to the other Board for concurrence; and when such resolution shall have so passed in each Board, the same shall be enrolled by the Clerk of the Common Council, and examined by a Committee of that Board; and on being found by said Committee to be correctly enrolled, without further reading or question, shall be signed by the President of the Common Council, and sent to the other Board, when a like examination shall be made by a Committee, and if found to be correctly enrolled, shall be signed by the Mayor.

8. All enrolled Ordinances shall be written in a fair and compact hand, without interlineations; and no enrolled Ordinance or Resolution shall be amended.

9. When either Board shall not concur with the other in any Ordinance or Resolution sent from such other, notice of such non-concurrence shall be given by written message.

10. In every case of disagreement on any matter requiring the joint action of the two Boards, if either Board shall request a conference, and appoint a Committee of Conference, and the other Board shall also appoint a Committee to confer, such Committee shall meet at a time agreed upon by the Chairman, and state to each other, either verbally or in writing, as either shall choose, the reasons of the respective Boards for or against the proposed action, confer freely thereon, and report to their respective branches.

11. All messages between the two Boards shall be reduced to writing by the respective Clerks, and may be transmitted by the Messenger.

12. It shall be the duty of every Joint Committee (the Committee on Streets excepted) to whom any subject may be specially referred, to report thereon within five weeks, or ask for further time.

13. The Mayor shall be, *ex-officio*, Chairman of any Joint Special Committee of which he is a member.

14. In all Joint Standing Committees, except that on Finance, the member first named in the Board of Aldermen shall be Chairman; of the Committee on Finance, the member first named in the Common Council shall be chairman; and in all Joint Special Committees of which the Mayor is not a member, the member first named in the Board where the business originates, shall be Chairman, and shall call the Committee together.

15. The reports of all Committees, signed by a majority of the members, shall be made to the Board in which the business referred originated.

16. No Committee shall act by separate consultation, and no report shall be received unless agreed to in Committee actually assembled.

17. No Committee shall enter into any contract with, or purchase, or authorize the purchase of, any article, of any of its members.

18. No Chairman of any Committee shall audit or approve any bill or account against the City, for any supplies or services which shall not have been ordered or authorized by the Committee.

19. All reports and other papers submitted to the City Council shall be written in a fair hand, without endorsement, except in case of the introduction of an order. In such case, the member introducing an order shall subscribe his name at the bottom of the back of the order. All other endorsements upon the back of papers shall be made by the Clerks,

and the Clerks of the Boards respectively shall, on seasonable notice, make copies of any papers to be reported by Committees, at the request of the respective Chairmen thereof.

20. No business shall be transacted by the City Council in Convention, except such as shall have been previously agreed on, unless by unanimous consent.

21. After the annual appropriations shall have been passed, no subsequent expenditure shall be authorized for any object, unless provision for the same shall be made by a specific transfer from some of the appropriations contained in the annual resolution, or by expressly creating therefor a City debt; but no such debt shall be created unless the resolution authorizing the same pass by the affirmative votes of two-thirds of the whole number of each branch of the City Council voting by yea and nay.

22. In balloting for officers of the City in Convention of the two Boards, blanks shall not be counted.

23. Either Board may propose to the other for its concurrence a time to which both Boards will adjourn; and neither shall adjourn without giving notice to the other Board through the Messenger or otherwise.

RULES AND ORDERS

OF THE

BOARD OF ALDERMEN.

First—The order of business shall be as follows :

1. The journal of the previous meeting shall be read.
2. Petitions shall next be called for, and be disposed of, by reference or otherwise.
3. Such nominations, appointments and elections, as may be in order, shall be considered and disposed of.
4. The orders of the day shall be taken up ; meaning by the orders of the day, the business remaining unfinished at the previous meeting, and such communications as may have been subsequently sent up from the Common Council.
5. New business may be introduced by any member of the Board.

Second—Every Bill or Ordinance shall pass through the following stages before it shall be considered as having received the final action of this board, viz :—first reading, second reading, passage to be enrolled, passage to be ordained ; and every Joint Resolution shall have two several readings before the question shall be taken on its final passage.

Third—A Bill or Ordinance may be rejected at either stage in its progress, but may not pass through all its stages in one day.

Fourth—Standing Committees shall be appointed as follows :

- A COMMITTEE ON BILLS IN SECOND READING,
- A COMMITTEE ON ENROLLMENT,
- A COMMITTEE ON LICENSES,
- A COMMITTEE ON LIGHTING STREETS,
- A COMMITTEE ON POLICE AND POLICE STATIONS,
- A COMMITTEE ON REPAIRS OF STREETS,
- A COMMITTEE ON SETTING TREES,
- A COMMITTEE ON WEIGHTS AND MEASURES.

Fifth—No member shall be interrupted while speaking, but by a call to order, or for the correction of a mistake; nor shall there be any conversation among the members while a paper is being read, or a question stated from the chair.

Sixth—A motion for the re-consideration of a vote shall be open to debate, but such motion shall not be considered unless made by a member voting with the majority, or unless notice thereof be given at the meeting at which the vote passed, in which case the motion shall be made at the next meeting after; and only one motion for the re-consideration of any vote shall be permitted.

Seventh—When any member is about to speak in debate, he shall rise in his place and respectfully address the presiding officer; shall confine himself to the question under debate, and avoid personality.

Eighth—The above rules and order of business shall be observed in all cases, unless suspended by a vote of two-thirds of the members present for a specific purpose.

RULES AND ORDERS

OF THE

COMMON COUNCIL.

1. The President shall take the chair precisely at the hour appointed for the meeting; call the members to order, and within ten minutes (or sooner, if a quorum be present) he shall cause the roll to be called, and the names of the absentees recorded. Before proceeding to business, he shall cause the minutes of the preceding meeting to be read. In the absence of the President, the oldest member present shall call the Council to order, and preside until a President *pro tempore* be chosen.

2. He shall preserve order and decorum; may speak to points of order in preference to other members, rising from his seat for that purpose, and shall decide questions of order, subject to an appeal to the Council by any member.

3. He shall rise to address the Council, to state facts, or to put a question, but may read sitting.

4. He shall declare all votes; but if a vote be doubted, the President shall, without further debate, require the members voting in the affirmative and negative to rise and stand until they are counted, and he shall declare the result.

5. He may call any member to the chair, but such substitution shall not extend beyond an adjournment; and, when out of the chair, the President may express his opinion on any subject under debate, and he shall not resume the chair while the same question is pending.

6. All questions shall be propounded in the order in which they are moved, unless the subsequent motion be previous in its nature; except that in naming sums and fixing times, the largest sum and the longest time shall be the first put.

7. After a motion is stated by the President, it shall be disposed of by a vote of the Council, unless the mover withdraw it before a decision or amendment.

8. A motion to adjourn shall always be in order; that and the motion to lay on the table, shall be decided without debate.

9. The previous question shall be in this form: "Shall the main question be now put?" It shall only be admitted when demanded by a majority of the members present; and, until it is decided, shall preclude all amendment and further debate of the main question.

10. The yeas and nays shall be taken on any question, upon the request of one-third of the members present.

11. When two or more members happen to rise at the same time, the President shall name the member who is to speak first.

12. When any member is about to speak in debate, or deliver any matter to the Council, he shall rise in his place and respectfully address the presiding officer, confining himself to the question under debate, and avoiding personality.

13. No member shall be mentioned in debate by his name, but may be described by the place he sits in, or such other designation as may be intelligible and respectful.

14. No member speaking shall be interrupted by another, but by a call to order or to correct a mistake. If any member in speaking or otherwise, transgress the rules of the Council, the President shall, or any member may call him to order; in which case, the member so called to order shall immediately sit down, until the question of order is decided. If the decision be in favor of the member called to order, he shall be at liberty to proceed; if otherwise, he shall not proceed without leave of the Council.

15. No member shall speak more than twice to the same question, without obtaining leave of the Council.

16. Whilst the President or any other member is speaking, none shall stand up, or pass unnecessarily before the person speaking.

17. Every motion shall be reduced to writing, if the President or any member require it.

18. When a question is under debate, no motion shall be received but to adjourn, to lay on the table, for the previous question, to postpone to a certain day, to commit, to amend, or to postpone indefinitely; which several motions shall have precedence in the order in which they are arranged; and no motion to postpone or commit shall be allowed twice in the same day in the same stage of the ordinance or proposition.

19. A motion for the re-consideration of a vote shall be open to debate, but such motion shall not be considered unless made by a member voting with the majority, or unless notice thereof be given at the meeting at which the vote passed; in which case the motion shall be made at the next meeting after; and only one motion for the re-consideration of any vote shall be permitted.

20. Every member who shall be in the Council when a question is put shall give his vote, unless the Council, for special reasons, excuse him.

21. No motion or proposition on a subject different from that under consideration shall be admitted under color of an amendment.

22. All motions and reports may be committed or re-committed at the pleasure of the Council.

23. The division of a question may be called for when the sense will admit of it.

24. When the reading of a paper is called for and objected to, it shall be determined by a vote of the Council.

25. No standing order of the Council shall be suspended, unless three-fourths of the members present consent thereto; nor shall any rule or order be repealed or amended, without one day's notice being given of the motion therefor, nor unless a majority of the whole Council concur therein.

26. All Committees, except such as the Council determine to select by ballot, shall be nominated by the President.

27. No member shall be obliged to serve on more than two Committees at the same time, or be Chairman of more than one.

28. All memorials and other papers, addressed to the Council, shall be presented to the President, or by a member in his place, who shall explain the subject thereof, and they shall be taken up in the order in which they were presented, unless the Council shall otherwise direct.

29. Standing Committees shall be appointed on the following subjects :

ON BILLS IN SECOND READING,

ON ENROLLMENT,

ON ELECTIONS AND RETURNS.

30. No Committee shall sit during the sitting of the Council, without special leave, except the Committee on the Second Reading of Bills and Ordinances, and the Committee on Enrollment.

31. The Rules of proceeding in the Council shall be observed in the Committee of the Whole, so far as they are applicable, except the Rule limiting the time of speaking.

32. When a Committee is nominated by the Chair, the person first named shall be Chairman. In election of Committees by ballot, when a Chairman is not specially chosen, the person having the highest number of votes shall act as Chairman, and, in case of an equality in votes between two or more members of a Committee, the members thereof shall choose a Chairman.

33. All Ordinances and Resolutions shall have two several readings before they shall be finally passed by this Council.

34. All Ordinances before being read a second time, shall be referred to the Committee on the Second Reading of Bills and Ordinances, and after being reported upon by said Committee, shall be again read, after which second reading, the question shall be on passing the same to be enrolled.

35. No Ordinance or Resolution imposing penalties, or authorizing the expenditure of money, shall have more than one reading the same day.

36. The seats of the Common Council shall be numbered and determined by lot, and no member shall change his seat but by permission of the President.

37. All Committees of the Council shall consist of three members, unless a different number be specially ordered. And no report shall be received from any Committee, unless agreed to in Committee actually assembled; and all reports shall be in writing.

38. It shall be the duty of every Committee of the Council, to whom any subject may be specially referred, to report thereon within five weeks, or ask for further time.

39. The Clerk shall keep brief minutes of the votes and proceedings of the Council, entering thereon all accepted Resolutions; shall notice reports and memorials, and other papers submitted to the Board, only by their titles, or a brief description of their purport.

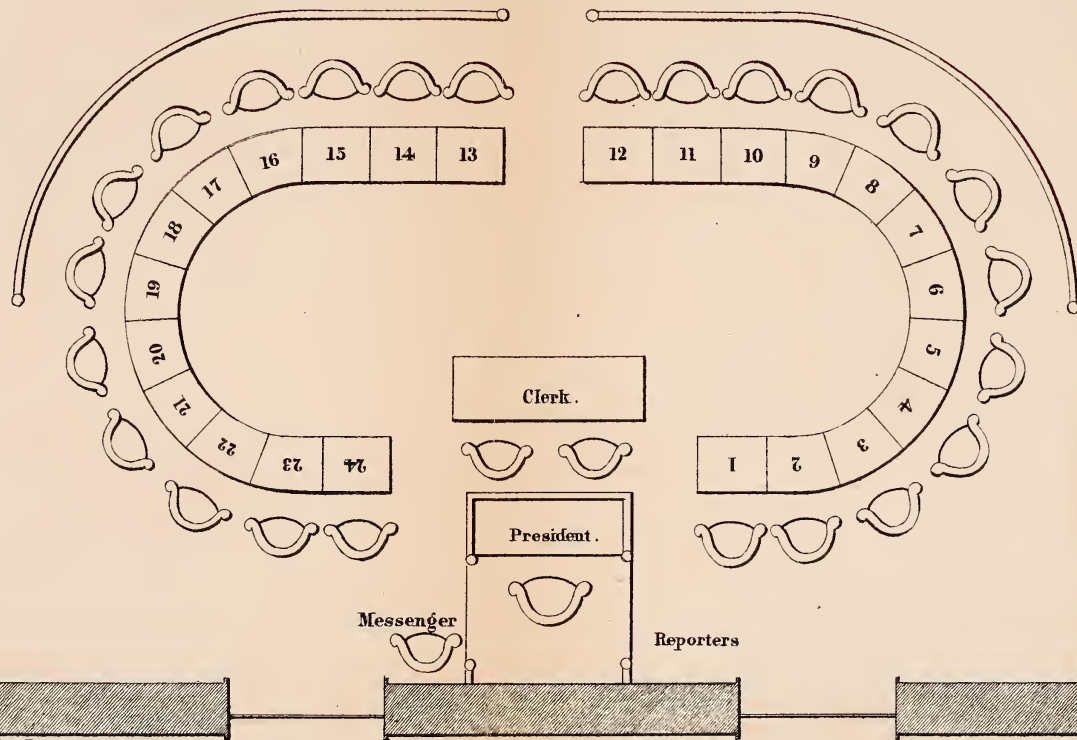
40. All salary officers shall be chosen by written ballots, and blanks shall not be counted.

41. Members of the Council may attend meetings of any of its Committees, but shall not vote thereat.

42. The Clerk of the Common Council shall keep the record of Committees who may require that service; and on the appointment of every Standing Committee a book for records shall be provided by its Chairman, or by said Clerk. The Clerk shall have the custody of all minutes by him kept; and the records of the several Committees shall be open to the inspection of the members of the City Council.



**PLAN OF
COMMON COUNCIL ROOM
LOWELL, MASS.**



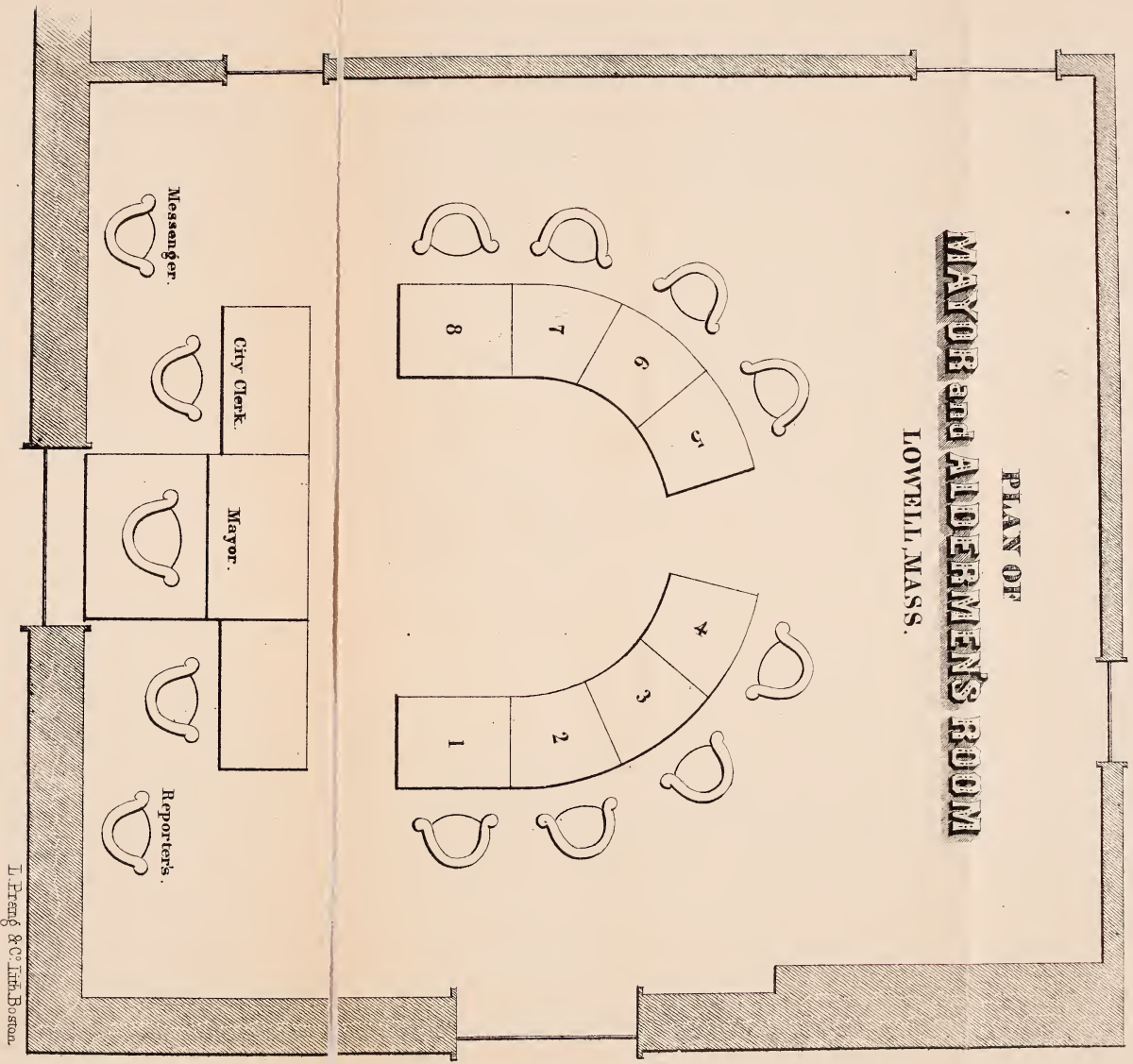
Prang & Co. Lith. Boston.

GUSTAVUS A. GERRY,

PRESIDENT.

- | | | | |
|-----------------------|------------------------|------------------------|------------------------|
| 1—GUSTAVUS A. GERRY, | 7—FREDERICK T. NORTH, | 13—ALFRED H. CHASE, | 19—JOHN SHEPARD, |
| 2—JOHN T. LEE, | 8—CALVIN SAWTELL, | 14—JAMES LAWTON, | 20—WILLIAM DOBBINS, |
| 3—JAMES FOSTER, | 9—GEORGE L. HUNTOON, | 15—FOSTER NOWELL, | 21—GEORGE S. CHENEY, |
| 4—SAMUEL D. PRESCOTT, | 10—JOHN B. HUNT, | 16—THOMAS F. BURGESS, | 22—NATHAN M. WRIGHT, |
| 5—ALFRED SCOTT, | 11—M. GILBERT PERKINS, | 17—J. Q. A. HUBBARD, | 23—SILAS TYLER, JR., |
| 6—RUEL J. WALKER, | 12—FOSTER WILSON, | 18—JONATHAN P. FOLSOM, | 24—JOHN N. PEIRCE, JR. |
-
- | | |
|-------------------|-----------------|
| CALVIN PHILBRICK, | GEORGE GARDNER, |
| Messenger. | Clerk. |

PLAN OF
MAYOR and ALDERMEN'S ROOM
LOWELL, MASS.



GEORGE F. RICHARDSON,
MAYOR.

- 1—CHARLES B. COBURN,
- 2—EDWARD C. RICE,
- 3—ALBION J. DUDLEY,
- 4—JOHN R. SOUTHWICK,

GALVIN PHILBRICK,
Messenger.

- 5—JOSEPH L. SARGENT,
- 6—ABNER W. BUTTRICK,
- 7—WILLIAM H. PARKER,
- 8—HOCUM HOSFORD,

JOHN H. MCALVIN,
City Clerk

GOVERNMENT OF THE CITY OF LOWELL,

1867.

MAYOR:

GEORGE F. RICHARDSON,

Nesmith Street.

ALDERMEN:

CHARLES B. COBURN.....	Colburn Street.
HOCUM HOSFORD.....	Central Street.
JOHN R. SOUTHWICK.....	Tremont Corp.
JOSEPH L. SARGENT.....	Seventh Street.
EDWARD C. RICE.....	Central Street.
ABNER W. BUTTRICK.....	Highland Street.
WILLIAM H. PARKER.....	Varney Street.
ALBION J. DUDLEY.....	Everett Street.

COMMON COUNCIL:

GUSTAVUS A. GERRY, PRESIDENT.

Ward One.

JOHN SHEPARD.....Merrimack Corporation.
 CALVIN SAWTELL.....Lowell Machine Shop Corp.
 FOSTER WILSON.....Merrimack Corp..
 M. GILBERT PERKINS.....Tremont Corp.

Ward Two.

GUSTAVUS A. GERRY.....Third Street.
 RUEL J. WALKER.....Boott Corp.
 WILLIAM DOBBINS.....Hampshire Street.
 SILAS TYLER, JR.....Kirk Street.

Ward Three.

JONATHAN P. FOLSOM.....Elm Street.
 FREDERICK T. NORTH.....Elm Street.
 SAMUEL D. PRESCOTT.....Bleachery Corp.
 NATHAN M. WRIGHT.....Central Street.

Ward Four.

JOHN B. HUNT.....Hamilton Corp.
 JOHN Q. A. HUBBARD.....Lincoln Street.
 ALFRED SCOTT.....Middlesex Street.
 THOMAS F. BURGESS.....Liberty Street.

Ward Five.

GEORGE L. HUNTOON.....Butterfield Street.
 GEORGE S. CHENEY.....Moody Street.
 JAMES FOSTER.....Lawrence Corp.
 JOHN T. LEE.....Adams Street.

Ward Six.

ALFRED H. CHASE.....Nesmith Street.
 JAMES LAWTON.....Prescott Corp.
 JOHN N. PEIRCE, JR.....Harrison Street.
 FOSTER NOWELL.....East Merrimack Street.

CITY CLERK.

JOHN H. MCALVIN.....24 Fourth Street,

[Chosen in Convention of the City Council, on the first Monday of January. City Charter, § 4.]

CLERK OF COMMON COUNCIL.

GEORGE GARDNER.....Mt. Washington Street.

[Chosen on the first Monday in January. City Charter, § 5.]

MESSENGER TO THE CITY COUNCIL.

CALVIN PHILBRICK.....287 Central Street.

[Appointed in January or February, by Mayor and Aldermen. Ordinances, p. 168.]

COMMITTEES OF THE CITY COUNCIL.

JOINT STANDING COMMITTEES.

ON ACCOUNTS. Aldermen Sargent and Buttrick; Councilmen North, Tyler and Cheney.

ON CLAIMS. Aldermen Hosford and Coburn; Councilmen Folsom, Scott and Peirce.

ON COMMONS. Aldermen Rice and Southwick; Councilmen Walker, Wright and Wilson.

ON FINANCE. The Mayor; Councilmen Gerry, Folsom and Tyler.

ON FIRE DEPARTMENT. Aldermen Southwick and Dudley; Councilmen Lee, Nowell and Hunt.

ON LANDS AND BUILDINGS. Aldermen Buttrick and Parker; Councilmen Huntoon, Perkins and Nowell.

ON MILITARY AFFAIRS. The Mayor; Aldermen Hosford and Sargent; Councilmen Wilson, Walker, Prescott, Scott, Huntoon and Chase.

ON PRINTING. The Mayor and Aldermen Dudley; Councilmen Foster, Burgess and Shepard.

ON PUBLIC INSTRUCTION. Aldermen Parker and Rice; Councilmen Peirce, Tyler and Folsom.

ON SEWERS AND DRAINS. Aldermen Dudley and Sargent; Councilmen Lawton, Sawtell and Hubbard.

ON STREETS. Aldermen Coburn and Rice; Councilmen Chase, Burgess and Dobbins.

BOARD OF HEALTH. The Mayor; Aldermen Parker and Southwick; Councilmen Perkins, Hubbard and Wright.

STANDING COMMITTEES.

OF THE BOARD OF ALDERMEN.

ON BILLS IN SECOND READING. Aldermen Rice and Coburn.

ON ENROLLMENT. Aldermen Parker and Southwick.

ON LICENSES. The Mayor ; Aldermen Parker and Buttrick.

ON LIGHTING. The Mayor ; Aldermen Sargent and Hosford.

ON POLICE AND POLICE STATIONS. The Mayor ; Aldermen Hosford and Dudley.

ON REPAIRS OF STREETS. The Mayor ; Aldermen Coburn and Rice.

ON SETTING TREES. The Mayor ; Aldermen Sargent and Buttrick.

ON WEIGHTS AND MEASURES. Aldermen Dudley and Southwick.

OF THE COMMON COUNCIL.

ON BILLS IN SECOND READING. Councilmen Shepard, North and Foster.

ON ENROLLMENT. Councilmen Prescott, Lawton and Lee.

ON ELECTIONS. Councilmen Cheney, Hunt and Sawtell.

CITY OFFICERS.

1867.

CITY TREASURER AND COLLECTOR OF TAXES.

THOMAS G. GERRISH,Office, City Hall.
[Chosen by the City Council in Convention in January. Ord. pp.
42, 167.]

Deputy Collectors are selected and appointed by the Treasurer.

AUDITOR OF ACCOUNTS.

GEORGE GARDNER,Office, City Hall.
[Chosen by concurrent vote in January or February. Ord. p. 167.]

SUPERINTENDENT OF STREETS.

LUTHER RICHARDS,Office, at Civil Engineer's Room, City Hall.
[Chosen by concurrent vote in January or February. Ord. p. 167.]

SURVEYORS OF HIGHWAYS.

GEORGE F. RICHARDSON, Mayor; Alderman CHARLES B. COBURN and
Councilman ALFRED H. CHASE.
[Chosen by concurrent vote in January or February. Ord. p. 167.]

CIVIL ENGINEER FOR THE CITY.

RICHARD W. BAKER,.....Office, City Hall.
 [Chosen by concurrent vote in January or February. Ord. p. 167.]

CITY SOLICITOR.

GEORGE STEVENS,.....Office, Barristers' Hall, Central Street.
 Chosen by concurrent vote in January or February. Ord. p. 167.]

LIBRARIAN OF THE CITY LIBRARY.

GEORGE C. EDWARDS,.....Office at the Library, City Hall.
 [Chosen by concurrent vote in January or February. Ord. p. 167.]

DIRECTORS OF CITY LIBRARY.

GEORGE F. RICHARDSON,.....	} <i>Ex-Officiis.</i>
GUSTAVUS A. GERRY, President of the Common Council,	
Ward 1,—LEWIS L. PERRIN,	Ward 4,—CHARLES KIMBALL,
Ward 2,—CHESTER W. RUGG,	Ward 5,—CHARLES HUBBARD,
Ward 3,—HENRY P. PERKINS,	Ward, 6,—ADDISON PUTNAM.

[The last six are chosen by concurrent vote in January or February.
 Ord. p. 133.]

CITY PHYSICIAN.

GEORGE E. PINKHAM,.....Office, corner Central and Jackson Streets.
 [Chosen by concurrent vote in January or February. Ord. p. 167.]

SUPERINTENDENT OF PUBLIC BUILDINGS.

LORENZO G. HOWE,.....Office, City Hall.
 [Chosen by concurrent vote in January or February. Ord. p. 167.]

SUPERINTENDENT OF BURIALS.

GEORGE E. PINKHAM, Office, corner Central and Jackson Streets.

[Chosen by concurrent vote in January or February. Ord. p. 167.]

ASSESSORS OF TAXES.

CALEB M. MARVEL,
JOSEPH B. V. COBURN,

DARIUS WHITHED,
WILLIAM LAMSON, JR.,

ISAAC A. FLETCHER,

CALEB M. MARVEL, *Chairman*, | WILLIAM LAMSON, JR., *Clerk*.

ASSIGNMENT OF WARDS.

Ward 1,—ISAAC A. FLETCHER,	|	Ward 4,—DARIUS WHITHED,
Ward 2,—JOSEPH B. V. COBURN,	|	Ward 5,—CALEB M. MARVEL,
Ward 3,—WILLIAM LAMSON, JR.,	|	Ward 6,—ISAAC A. FLETCHER.

[Chosen by concurrent vote in January or February. Ord. p. 167.]

OVERSEERS OF THE POOR.

GEORGE F. RICHARDSON, Mayor, *ex-officio*.

ALDERMEN.

HOCUM HOSFORD,

CHARLES B. COBURN.

COMMON COUNCIL.

Ward 1,—M. GILBERT PERKINS,	|	Ward 4,—ALFRED SCOTT,
Ward 2,—WILLIAM DOBBINS,	|	Ward 5,—GEORGE L. HUNTOON,
Ward 3,—FREDERICK T. NORTH,	|	Ward 6,—ALFRED H. CHASE.

SUB-COMMITTEES.

On Fuel and Out-door Relief.—The Mayor and Aldermen Hosford and Coburn.

On Agriculture, Neat Cattle and Swine.—The Mayor, Alderman Coburn, and Councilmen Scott, Dobbins and Huntoon.

On Care and Repair of Buildings.—Aldermen Coburn and Hosford, and Councilmen Scott, Chase and Perkins.

On Clothing and Furniture.—The Mayor, Alderman Hosford and Councilmen Chase, Perkins and North.

On Provisions and Supplies.—The Mayor, Alderman Coburn and Councilmen Huntoon, Dobbins and Scott.

On the Reform School.—The Mayor, Alderman Hosford and Councilmen North, Perkins and Chase.

GEORGE F. RICHARDSON, Mayor, *Chairman*.

FREDERICK T. NORTH, Councilman, *Secretary*.

The regular meetings of the Board are held at the Alms House on the last day of each month.

ALMS HOUSE.

The Work House formerly connected with the Alms House, and used for the imprisonment of certain convicts, was abolished by the City Council in 1859. There is now connected with the Alms House, "The House for the Employment and Reformation of Juvenile Offenders in the City of Lowell." The Poor Farm embraces about one hundred and twenty-five acres; seventy-five of which are in a high state of cultivation.

LORENZO PHELPS, *Superintendent*. | WILLIAM A. LANG, *Chaplain*.

There is also, one Male Assistant, with a salary of \$500 per year; one Female Assistant, with a salary of \$3.00 per week. The Superintendent is appointed by the Overseers of the Poor, annually, in February or March.

POLICE DEPARTMENT.

(Ord. p. 170.)

This Department is under the immediate direction of the Mayor and Aldermen. Its officers and members are nominated by the Mayor, subject to the confirmation or rejection of the Aldermen. Under the present organization, the Police are divided into Day and Night Police. The Night Police are also appointed Watchmen.

CITY MARSHAL.

BICKFORD LANG, Office, West end of Market House Building.

[Chosen by concurrent vote in January or February. Ord. p. 167.]

HEALTH COMMISSIONER.

BICKFORD LANG..... [Ord. p. 167.]

[Chosen by concurrent vote in January or February.]

DEPUTY MARSHAL.

CHARLES P. BOWLES.....Office, West End of Market House Building.

[Appointed by Marshal. and approved by Mayor and Aldermen.
Ord. p. 171.]

DAY POLICE.

BENJAMIN G. MOONEY.

CHARLES P. BOWLES.

HENRY MARSHALL.

ASA D. CLARK.

These officers are required to serve Criminal Preepts, and are stationed at the Police Office, under the direction and command of the City Marshal.

POLICE OFFICERS AND WATCHMEN.

LEVI BROWN, Captain of the Night Police.

CHARLES P. BOWLES.

AUGUSTUS B. FOSS.

THEOPHILUS C. BLAISDELL,

DAVID H. GOODHUE.

WILLIAM BODGE.

WILLIAM M. LEE.

MOSES D. BARKER.

ISAAC L. LIBBY.

SQUIRE L. BAILEY.

BENJAMIN G. MOONEY.

OTIS BULLARD.

HENRY MARSHALL.

JOHN COLEMAN.

GEORGE W. SANBORN.

ABEL C. CHASE.

THOMAS J. SANBORN,

ASA D. CLARK.

JAMES W. SHEFFIELD,

WILLIAM L. CLARK.

DANIEL H. SINCLAIR.

ALFRED DAY.

DAVID S. SPAULDING.

JOHN DOUGHERTY.

JOSEPH UPTON.

WILLIAM P. FARRINGTON.

JAMES E. WEBSTER.

SUPERNUMERARIES.

CHARLES MINER.

ALLEN P. BICKFORD.

ORRA A. FLETCHER.

ELIPHALET MILLER.

ALMON LIBBY.

BENJAMIN F. BARNARD,

THOMAS INGALLS.

JOSEPH HOVEY.

JESSE HUSE.

ANDREW BLOOD.

WILLIAM M. LOCKE.

ASA F. ESTY.

[Appointed by the Mayor and Aldermen in January or February.
Ord. p. 168.]

POLICE OFFICERS AND WATCHMEN NOT PAID BY THE CITY.

Lewis F. Emery,.....	}	For Boston & Lowell Railroad Co.
Moses S. Leach,.....		
H. B. Bailey,.....		
George E. Gould,.....		
Eben Meserve,.....		
Norman Burnham,.....		
Eleazer Burnham,.....		
James G. Marshall,.....		
O. A. Brigham,.....		
Jerry Coughlin,.....	}	For Boston & Lowell Railroad Co.
Joseph M. Hodgdon,.....		
Southwell Farrington,.....		
Horatio N. Merrill,.....		Merrimack Company.
David Atwood,.....		Lawrence Company.
Alfred Vickery,.....		Massachusetts Company.
Mason W. Presby,.....		Appleton Company.
Elisha Thomas,.....		Hamilton and Appleton Companies.
Augustus Gleason,.....		“ “ “ “
Almon Libby,.....	}	Middlesex Company.
William Lamson,.....		Bank Building.
Warren Fletcher,.....		Huntington and Jackson Halls.
Edmund Thomas,.....		Guard Locks.
Lorenzo Phelps,.....		Alms House.
Dauphin W. Osgood,.....		Barristers' Hall.
James Hurd,.....		“ “
William M. Smith,.....		Cemetery.
Jacob G. Favor,.....		Jail.
Joseph Tilton,.....	}	Whipple's Mills.
Simon Kinsman,.....		“ “
James Buchanan,.....		“ “
Harvey B. Chase,.....		Chase Mills.
Nathaniel Lathe,.....		Paige Street Freewill Baptist Church.
Joseph Field,.....		“ “ “ “ “
Alden B. Watson,.....		Worthen Street Baptist Church.
William P. Cummings,.....		St. Paul's Church.
John Horner,.....		“ “
Dennis Thompson,.....	}	Vicinity of Otis Allen's Mills.
James Hurd,.....		Court House and vicinity.
Jesse Blake,.....		Ayer's New City.
Charles W. Kimball,.....		“ “ “

Calvin Webster,.....	Ayer's New City.
George A. Weed,.....	First Baptist Church.
Luther Richards,.....	For the City.
Lewis F. Emery,.....	Appleton Street Church.
H. R. Pressey,.....	Vicinity of Norcross' Mills.
William H. Allen,.....	Norcross' Mills.
Frank P. Jacobs,.....	First National Bank.
Henry M. Thompson,.....	Vicinity of Cabot Street.
Ira Hartwell,.....	Suffolk Corporation.
Deliverance P. Brown,.....	Locks and Canals Company.
Roswell S. Burnham,.....	" " " "
Cleveland J. Cheney,.....	" " " "
Thomas Nichols,.....	French's Hall.
Wilder Bennett,.....	Lowell Horse Railroad Company.
Joel Powers,.....	Appleton Street Church.
Samuel M. Patterson,.....	First Congregational Church.
James Hulme,.....	Spiritualist's Church.
Sidney Davis,.....	First Universalist Church.
George W. Fullerton,.....	Central Methodist Episcopal Church.
William McFarlin,.....	Vicinity of Pawtucket Falls.
Joseph Moore,.....	Vicinity of Artemas L. Brooks' Mills.
George W. Kelly,.....	" " " "
Patrick Cummiskey,.....	St. Patrick's Church.
William W. Bates,.....	Vicinity of Gas Works.
John McAleer,.....	North and South Commons.
C. T. Chamberlin,.....	No. 3 Burying Ground.
Henry S. Foster,.....	Vicinity of Pistol Factory.
Darius E. Quimby,.....	Wamesit Steam Mills.
Stephen L. Young,.....	Mechanics Hall.
Daniel Dix,.....	Wyman's Hall.
James Hopkins,.....	All the Corporations.
James F. Choate,.....	Wamesit Mills.
George Robbins,.....	Lowell Machine Shop.
William Dingley,.....	Tremont Corporation.

OFFICERS APPOINTED TO MAKE COMPLAINTS AGAINST TRUANT CHILDREN
AND ABSENTEES FROM SCHOOL.

BICKFORD LANG,
ASA D. CLARK,

BENJAMIN G. MOONEY,
CHARLES P. BOWLES,

HENRY MARSHALL.

CONSTABLES.

BICKFORD LANG,
THOMAS W. PRESSEY,
CALVIN PHILBRICK,

BRADFORD MARVEL.

DANIEL G. GREENLEAF,
JOSIAH HUBBARD,
OWEN McNAMARA,

TYTHINGMEN.

The MARSHAL and the POLICE FORCE.

[Ord. p. 167.]

JANITOR OF HUNTINGTON AND JACKSON HALLS.

WARREN FLETCHER,.....[Appointed by the Mayor.]

SURVEYORS OF LUMBER.

GEORGE W. KELLEY,
LORENZO G. HOWE,
JAMES N. MORSE,

SAMUEL NEWHALL.

JOSHUA M. HADLEY,
STEPHEN C. DAVIS,
LUTHER SMITH,

[Four or more chosen by concurrent vote, commencing in the Board of Aldermen, in January or February. Ord. p. 167.]

FENCE VIEWERS.

LORENZO PHELPS,

ISAAC PAGE.

JOSHUA M. HADLEY,

[Chosen by concurrent vote, commencing in the Board of Aldermen, in January or February. Ord. p. 167.]

FIELD DRIVERS.

BICKFORD LANG,
SIMON KINSMAN,
JAMES CARLEY,
CHARLES P. BOWLES,

ROSWELL S. BURNHAM,
GEORGE WEBSTER,
DANIEL S. BARRY,
HENRY MARSHALL.

[Chosen by concurrent vote, commencing in the Board of Aldermen, in January or February. Ord. p. 167.]

POUND KEEPER.

THOMAS SIMPSON. [Chosen by concurrent vote, commencing in the Board of Aldermen, in January or February. Ord. p. 167.]

SEALER OF WEIGHTS AND MEASURES.

JOHN A. KNOWLES, JR.,.....Office, at Mechanics' Mills.

[Appointed by the Mayor and Aldermen in January or February. Ord. p. 168.]

CITY CRIER.

WALTER S. SIMONS,.....Office, Daily Courier Office.

[Appointed by Mayor and Aldermen in February. Ord. p. 168.]

WEIGHER OF HAY AND OTHER ARTICLES.

HIRAM WHITNEY. Forty per cent. of his fees are payable to the City, quarterly.

[Appointed by the Mayor and Aldermen, in January or February. Ord. p. 168.]

MEASURERS OF UPPER LEATHER.

WILLARD A. BROWN,

NATHAN W. FRYE,

JOHN Q. A. HUBBARD,

GEORGE W. EATON,

ORVILLE W. COOK.

[Appointed by the Mayor and Aldermen in April. Ord. p. 168.]

MEASURERS OF GRAIN.

SAMUEL N. WOOD,

EDWIN LAMSON.

WILLIAM E. LIVINGSTON,

Fees $2\frac{1}{2}$ mills per bushel for measuring. [Appointed by the Mayor and Aldermen, in January or February. Ord. p. 168.]

SURVEYORS OF PLASTERING, BRICK OR STONE WORK, AND PAINTING.

SAMUEL NEWHALL,

RICHARD W. BAKER,

JOSHUA M. HADLEY,

CYRUS LATHAM.

[Appointed by the Mayor and Aldermen, in January or February. Ord. p. 168.]

INSPECTOR OF MILK.

GEORGE E. STANLEY,.....Office at Northern Depot.

[Appointed by the Mayor and Aldermen, in January or February. Ord. p. 168.]

INSPECTOR OF BALE OR BUNDLE HAY.

SIDNEY DAVIS.

[Appointed by the Mayor and Aldermen, in January or February. Ord. p. 168.]

INSPECTORS OF PETROLEUM OILS.

DAVID CHASE,

|

GEORGE W. WAYMOTH.

[Appointed by the Mayor and Aldermen. Chap. 262 of the Acts of 1866.]

WEIGHER OF COAL.

SIDNEY DAVIS.

[Appointed by the Mayor and Aldermen, in January or February. Ord. p. 168.]

AGENT FOR THE SALE OF PURE LIQUORS.

CHARLES R. KIMBALL, Office, Wyman's Exchange Building.

Appointed by the Mayor and Aldermen in May. Gen. Stat. Chap. 86, § 17.]

UNDERTAKERS.

CALVIN T. CHAMBERLIN,

|

DANIEL H. GORDON,

TERRENCE HANOVER.

[Appointed by the Mayor and Aldermen in January or February. Ord. pp. 153, 168, 194.]

MEASURER OF WOOD AND BARK.

SIDNEY DAVIS, Office at City Scales, rear of Market House Building.

[Appointed by the Mayor and Aldermen in January or February. Ord. pp. 153, 168, 194.]

SUPERINTENDENT OF CITY SCALES.

SIDNEY DAVIS, Office, at City Scales, rear of Market House Building.

[Appointed by the Mayor and Aldermen in January or February. Ord. pp. 153, 168, 194.]

MEASURER OF WOOD AND BARK BROUGHT BY WATER, OR RAILROAD CARS, INTO THE CITY.

SAMUEL NEWHALL.

[Appointed by the Mayor and Aldermen in January or February.
Ord. p. 168.]

FIRE DEPARTMENT—FOR 1867-8.

[Appointed by the Mayor and Aldermen on the first Wednesday in
April. Ord. p. 168.]

CHIEF ENGINEER.

GEORGE W. WAYMOTH,.....Carleton Block.

ASSISTANT ENGINEERS.

CHARLES H. ARLEN,..... 2 City Hall Avenue.
JOHN C. HALL, 7 Lawrence Street.
SAMUEL W. TAYLOR,.....172 Merrimack Corporation.
WILLIAM W. BATES,.....158 School Street.
CYRUS E. LUSCOMB. 3 Boott Corporation.
JOSIAH BUTLER,..... 1 Tyler Street.
JOHN C. HALL, *Clerk of the Board.* (Chosen by Board of Engineers.)

HAND ENGINES.

Excelsior Company, No. 1, Central Street, foot of Union Street.

JOSEPH STEVENS, Foreman.....38 members.

Rocket Company, No. 2, Ayer's City.

———, Foreman. [This is a volunteer Company—not obliged
to attend fires in the city.]

Tiger Company, No. 5, Colburn Street, near Merrimack Street.

C. M. CLARK, Foreman.....38 members.

Mazeppa Company, No. 10, Fayette Street, corner Chestnut Street.

JAMES PLATT, Foreman.....38 members.

Torrent Company, No. 12, Fourth Street, Centralville.

———, Foreman. [This is a volunteer Company—not obliged
to attend fires in the city.]

Deluge Company, No. 14, Bleachery Street, Near Gorham Street.

FORDYCE COBURN, Foreman. [This is a volunteer Company—not obliged to attend fires in the city.]

HOOK AND LADDER COMPANY.

Franklin Hook and Ladder Company, Middle Street.

JOHN G. CROCKETT, Foreman,38 members.

HOSE COMPANY.

Hydrant Hose Company, Warren Street, near Central Street.

C. W. BURGESS, Foreman,15 members.

STEAM FIRE ENGINES.

General Butler No. 1, Middle Street.

CHARLES H. PHILBRICK, Foreman. | GEORGE W. AUSTIN, Engineer.

Weight, about 4,790 pounds. Cost, \$4,250. Built in 1866, by William Jeffers & Co., Pawtucket, R. I.

Torrent No. 2, Middlesex Street.

CHARLES W. MARRIOTT, Foreman. | GEORGE MADDOCKS, Engineer.

Weight, about 6,200 pounds. Cost \$3,000. Built in 1861, by Silsby, Mynderse & Co., Seneca Falls, N. Y.

Wamesit No. 3, Warren Street, near Central Street.

GEORGE F. SALMON, Foreman. | TORRY E. STRATTON, Engineer.

Weight, about 8,300 pounds. Cost, \$3,500. Built in 1859, by Silsby, Mynderse & Co., Seneca Falls, N. Y.

POLICE COURT.

NATHAN CROSBY, *Standing Justice.*

GEORGE STEVENS, }
ANDREW F. JEWETT, } *Special Justices.*

SAMUEL P. HADLEY, JR., *Clerk.* [Chosen at Municipal election, 1866, and every fifth year thereafter, by the people. Gen. Stat.]

SCHOOL COMMITTEE FOR 1867-S.

GEORGE F. RICHARDSON, Chairman.

SAMUEL W. STICKNEY, Vice Chairman.

CHARLES MORRILL, Secretary.

MEMBERS OF SCHOOL COMMITTEE.

GEORGE F. RICHARDSON, Mayor,	}	<i>Ex-Officiis.</i>
GUSTAVUS A. GERRY, President of Common Council,		
Ward 1—J. W. B. SHAW,	Term expires	1867
JAMES B. FRANCIS,	“	“ 1868
“ 2—DANIEL P. GAGE,	“	“ 1867
S. W. STICKNEY,	“	“ 1868
“ 3—JOSHUA MERRILL,	“	“ 1867
JOHN F. FRYE,	“	“ 1868
“ 4—JOHN DAVIS,	“	“ 1867
JOHN H. BUTTRICK,	“	“ 1868
“ 5—GEORGE H. WHITMORE,	“	“ 1867
RUFUS ROGERS,	“	“ 1868
“ 6—LUTHER E. SHEPARD,	“	“ 1867
JOHN A. GOODWIN,	“	“ 1868

STANDING COMMITTEES.

ON ACCOUNTS. Messrs. Richardson, Gerry, Stickney, Francis and Shaw.

ON SCHOOL HOUSES. Messrs. Francis, Gerry, Merrill, Davis and Gage.

ON TEACHERS. Messrs. Frye, Goodwin, Shepard, Davis and Gage.

ON REPORTS. Messrs. Goodwin, Shepard, Buttrick, Rogers and Whitmore.

ON BOOKS. Messrs. Richardson, Stickney, Frye, Davis, Shaw and Goodwin.

ON MUSIC. Messrs. Stickney, Gerry, Merrill, Davis and Rogers.

ON SALARIES. Messrs. Merrill, Stickney, Shaw, Whitmore and Francis.

SUPERINTENDENT OF PUBLIC SCHOOLS.

CHARLES MORRILL,, Office in City Government Rooms.

WARD OFFICERS—1867.

WARD ONE.

Warden, Cleveland J. Cheney,
Clerk, L. W. Huntington,
Inspectors, . . John F. Merrill,
 Loring Foster,
 F. T. Greenhalgh.

WARD TWO.

Warden, William H. Flagg,
Clerk, Lucius W. Hilton,
Inspectors, . . William H. French,
 Eli B. Carleton,
 Phineas Jones.

WARD THREE.

Warden, Alfred Gilman,
Clerk, William Lamson, Jr.,
Inspectors, . . George B. Goodale,
 Oliver Lord,
 Benjamin C. Dean.

WARD FOUR.

Warden, Joseph S. Grush,
Clerk, James G. Buttrick,
Inspectors, . . Marshall Whithed,
 Henry P. Carter,
 Nathaniel P. Favor.

WARD FIVE.

Warden, Edwin Lamson,
Clerk, A. B. Woodworth,
Inspectors, . . Newton J. Weir,
 James N. Morse,
 William G. Coffin.

WARD SIX.

Warden, Joel A. Abbott,
Clerk, S. Kimball DeCoster,
Inspectors, . . Edwin Lovejoy,
 Edward S. Hosmer,
 Josiah P. Vickery.

CATALOGUE
OF THE
GOVERNMENT OF THE CITY OF LOWELL,
IN
CHRONOLOGICAL ORDER OF THEIR SERVICE,
FROM ITS INSTITUTION,
1836, TO 1867.

1836.

Mayor:

ELISHA BARTLETT.

Aldermen:

William Austin, resigned Oct. 10,
Joseph Tapley, elected November,
Seth Ames,
Aaron Mansur,

Benjamin Walker,
Oliver M. Whipple,
Alexander Wright.

SAMUEL A. COBURN, *City Clerk*.

Common Council:

John Clark, *President*,
Henry J. Baxter,
Jonathan Bowers,
George Brownell,
James Cook,
David Dana,
Erastus Douglass,
Josiah B. French,
Cyril French,
Samuel Garland,
Horatio W. Hastings,
Horace Howard,

Stephen Mansur,
John Mixer,
Thomas Nesmith,
David Nourse,
Thomas Ordway,
James Russell,
John A. Savels,
Sidney Spalding,
Weld Spalding,
Jonathan Tyler,
Tappan Wentworth,
William Wyman.

GEORGE WOODWARD, *Clerk*, died. ALBERT LOCKE, elected.

1837.

Mayor:

ELISHA BARTLETT, †'36.

Aldermen:

Seth Ames, *'36,
John Aiken,
Seth Chellis,

Joseph G. Kittredge,
Joshua Swan,
Alexander Wright, *'36.

SAMUEL A. COBURN, *City Clerk*.

Common Council:

WARD 1.

Joshua Abbott,
James K. Fellows,
Jesse Phelps,
Walter Wright.

WARD 2.

William Fiske,
Thomas Nesmith, '36.
Josiah Osgood,
Joseph Tyler.

WARD 3.

Joseph M. Dodge,
Elisha Huntington, *President*,
William North,
Joseph Tapley.

WARD 4.

William Baker,
Elijah M. Read,
Charles H. Wilder,
William W. Wyman.

WARD 5.

George Brownell, '36,
Osgood Dane,
James Russell, '36.
Tappan Wentworth, '36.

WARD 6.

Andrew Bird,
Benjamin H. Gage,
Jona. T. P. Hunt,
Abram Tilton.

ALBERT LOCKE, *Clerk*.

1838.

Mayor:

LUTHER LAWRENCE.

Aldermen:

Benjamin F. French,
Charles L. Tilden,
Oliver M. Whipple, *'36,

George H. Carleton,
George Brownell, '36, '37,
Seth Chellis, *'37.

THOMAS ORDWAY, *City Clerk.*

Common Council:

WARD 1.

Jesse Phelps, '37,
Walter Wright, '37,
Eliphalet Brown,
Perez Fuller.

WARD 2.

William Fiske, '37.
Aaron H. Sherman,
William Upham,
Henry J. Baxter, '36.

WARD 3.

Thomas Hopkinson,
Elisha Huntington, ‡ '37, *President*,
Horace Howard, '36,
John Mixer, '36.

WARD 4.

David Dana, '36,
Perley Hale,
Benjamin Walker, *'36,
William Baker, '37.

WARD 5.

Garret J. Bradt,
Benjamin Wilde,
Erastus Douglass, *'36,
Rufus Paul.

WARD 6.

Eli Cooper,
Thomas L. Randlett,
James L. Foot,
Calvin Goodspeed.

ALBERT LOCKE, *Clerk.*

1839.

Mayor:

LUTHER LAWRENCE. — [Died in April.]

ELISHA HUNTINGTON, ‡ '37, ‡ '38.

Aldermen:

Benjamin F. French, *'38,
John O. Green,
Charles L. Tilden, *'38,

George H. Carleton, *'38,
John Clark, ‡ '36,
Oliver M. Whipple, *'36, *'38.

THOMAS ORDWAY, *City Clerk.*

Common Council:

WARD 1.

Walter Wright, '37, '38,
Harlin Pillsbury,
Eliphalet Brown, '38,
Forrest Eaton.

WARD 2.

Jonathan Tyler, '36,
John Nesmith,
Henry J. Baxter, '36, '38,
Jefferson Bancroft.

WARD 3.

Thomas Hopkinson, '38, *President*,
Jacob Robbins,
John G. Locke.

WARD 4.

Benjamin Walker, *'36, '38,
Samuel Horn,
Stephen Carleton,
Stephen Mansur, '36.

WARD 5.

Tappan Wentworth, '36, '37,
Lewis McIntire, died Feb., '40,
Benjamin Wilde, '38,
Garret J. Bradt, '38.

WARD 6.

Thomas L. Randlett, '38,
Joseph S. Holt,
John L. Fitts,
Daniel Knapp.

ALBERT LOCKE, *Clerk.*

1840.**Mayor:**

ELISHA HUNTINGTON, † '37, † '38, † '39.

Aldermen:Jonathan Tyler, '36, '39,
John R. Adams,
Joseph Bedlow,Harlan Pillsbury, '39,
Seth Ames, * '36, * '37,
Stephen Mansur, '36, '39.THOMAS ORDWAY, *City Clerk*.**Common Council:****WARD 1.**Forrest Eaton, '39,
Sylvanus Adams,
Henry Patch,
R. M. Hutchinson.**WARD 2.**Jefferson Bancroft, '39,
John Nesmith, '39,
Joseph G. Kittredge, * '37,
Josiah Osgood, '37.**WARD 3.**Pelham W. Warren, *President*,
Abner W. Buttrick,
Asa Hall,
Samuel Burbank.**WARD 4.**Ferdinand Rodliff,
Ethan Burnap,
Edward F. Watson,
B. Walker, * '36, '38, '39, died Sept.**WARD 5.**Tappan Wentworth, '36, '37, '39,
Samuel W. Brown,
John J. Crane,
George Dane.**WARD 6.**Daniel Knapp, '39,
George L. Fitts, '39,
Joseph Battles,
Joshua Converse.ALBERT LOCKE, *Clerk*, died October. JOHN G. LOCKE, elected October.**1841.****Mayor:**

ELISHA HUNTINGTON, † '37, † '38, † '39, † '40.

Aldermen:Seth Chellis, * '37, '38,
Jefferson Bancroft, '39, '40,
Cyril French, '36,George H. Carleton, * '38, * '39,
John R. Adams, * '40.
John Aiken, * '37.THOMAS ORDWAY, *City Clerk*.**Common Council:****WARD 1.**Henry Patch, '40,
George Bragdon,
John W. Holland,
Arnold Welch.**WARD 2.**William Fiske, '37, '38,
Erasmus D. Leavitt,
Jonathan White,
Nathaniel Wilson.**WARD 3.**Samuel Burbank, '40,
Nathaniel Critchett,
Royal Southwick,
Edward Winslow.**WARD 4.**Ethan Burnap, '40,
William Livingston,
John Morrison,
Edward F. Watson, '40.**WARD 5.**Tappan Wentworth, '36, '37, '39,
'40, *President*,
Samuel W. Brown, '40,
John J. Crane, '40.
Phineas Whiting.**WARD 6.**Francis H. Bowers,
Isaac H. Cooper,
William Potter,
John Smith.JOHN G. LOCKE, *Clerk*.

1842.**Mayor:****NATHANIEL WRIGHT.****Aldermen:**

Nathaniel Thurston,
 Jefferson Bancroft, '39, '40, '41,
 Cyril French, '36, *'41,

William Livingston, '41,
 Ithamar A. Beard,
 John W. Graves.

THOMAS ORDWAY, *City Clerk.*

Common Council:**WARD 1.**

Jeremiah P. Jewett,
 John Hadley,
 James Townsend,
 Edward J. Payne.

WARD 2.

John Nesmith, '39, '40,
 Erasmus D. Leavitt, '41,
 Joseph W. Mansur, *President*,
 James Hopkins.

WARD 3.

Nathaniel Critchett, '41,
 Ira Spalding,
 John Mead,
 Asa W. Willoughby.

WARD 4.

John Morrison, '41,
 William Carlton,
 Oliver March,
 Josiah B. French, '36.

WARD 5.

James Patterson,
 Isaac Appleton,
 Josiah Seavey,
 Roswell Douglass.

WARD 6.

James Russell, '36, '37,
 Jonathan Kendall,
 Varnum A. Shed,
 Isaac N. Fitts.

JOHN G. LOCKE, *Clerk.*

1843.**Mayor:****NATHANIEL WRIGHT, †'42.****Aldermen:**

Harlin Pillsbury, '39, *'40, res'd June,
 Henry C. Johnson,
 Cyril French, '36, *'41, *'42,

S. Spalding, '36, resigned in June.
 Joseph Griffin,
 Charles L. Tilden, *'38, '39.

THOMAS ORDWAY, *City Clerk.*

Common Council:**WARD 1.**

Daniel Bixby,
 Edward J. Payne, '42,
 Hugh Cumiskey,
 Walter Wright, '37, '38, '39.

WARD 2.

Henry J. Baxter, '36, '38, '39,
 John P. Simonds,
 Pliny Lawton,
 Ben Osgood.

WARD 3.

John Mead, '42,
 Willard Brown,
 Ira Spalding, '42,
 Benjamin J. Gerrish.

WARD 4.

Otis Allen,
 Alfred Gilman,
 Oliver March, '42, *President*,
 William Carlton, '42.

WARD 5.

James Patterson, '42,
 David Bradt,
 John L. Tripp,
 Benjamin F. Holden,

WARD 6.

John B. McAlvin,
 Cyrus Battles,
 Sewall G. Mack,
 Charles F. Mitchell.

JOHN G. LOCKE, *Clerk.*

1844.**Mayor:**

ELISHA HUNTINGTON, †'37, †'38, †'39, †'40, †'41.

Aldermen:

Henry Smith,
Selwin Bancroft,
O. M. Whipple, *'36, *'38, *'39,

Edward F. Watson, '40, '41,
Joseph Griffin, *'43,
John Wright.

THOMAS ORDWAY, *City Clerk.***Common Council:****WARD 1.**

Forrest Eaton, '39, '40,
Gilman N. Nichols,
Hugh Cummiskey, '43,
David Healey.

WARD 2.

John P. Simonds, '43,
Ben Osgood, '43,
Amos Merriam,
John Clark, †'36, *'39, *President.*

WARD 3.

Charles B. Coburn,
George Choate,
Isaac Scripture,
William C. Gray.

WARD 4.

Asa Wetherbee,
Abner W. Buttrick, '40,
Horatio G. F. Corliss,
Charles H. Wilder, '37.

WARD 5.

John L. Tripp, '43,
David Bradt, '43,
John Wright,
Nathaniel Wright, Jr.

WARD 6.

Sewall G. Mack, '43,
James Russell, '36, '37, '42,
Jonathan Kendall, '42,
Gilman Gale.

JOHN G. LOCKE, *Clerk.***1845.****Mayor:**

ELISHA HUNTINGTON, †'37, †'38, †'39, †'40, †'41, †'44.

Aldermen:

Henry Smith, *'44,
Selwin Bancroft, *'44,
O. M. Whipple, *'36, *'38, *'39, *'44,

Edward F. Watson, '40, '41, *'44,
John C. Dalton,
Daniel Knapp, '39.

THOMAS ORDWAY, *City Clerk.***Common Council:****WARD 1.**

Gilman N. Nichols, '39,
Danforth P. Brigham,
Jonathan Adams,
Willard C. Welch.

WARD 2.

John P. Simonds, '43, '44,
Daniel Balch,
William Brown,
Daniel S. Richardson, *President.*

WARD 3.

Isaac Scripture, '44,
William C. Gray, '44,
George Choate, '44,
Hapgood Wright.

WARD 4.

Abner W. Buttrick, '40, '44,
Asa Wetherbee, '44,
Charles H. Wilder, '37, '44,
Josiah Sawtell.

WARD 5.

Nathaniel Wright, Jr., '44,
Amos Hyde,
Edward Sherman,
James Fenno.

WARD 6.

Gilman Gale, '44,
John B. McAlvin, '43,
Samuel Fay, Jr.,
Lorenzo P. Wright.

JOHN G. LOCKE, *Clerk.*

1846.**Mayor:**

JEFFERSON BANCROFT, '39, '40, *'41, *'42.

Aldermen:

Henry Smith, *'44, *'45,
 Selwin Bancroft, '44, *'45,
 William C. Gray, '44, '45,
 Joseph Butterfield,

John C. Dalton, '45,
 D. Knapp, '39, *'45, resigned July,
 Isaac Cooper, '41, elected August.

THOMAS ORDWAY, *City Clerk.***Common Council:****WARD 1.**

Gilman N. Nichols, '39, '45,
 Danforth P. Brigham, '45,
 Willard C. Welch, '45,
 Thomas S. Hutchinson.

WARD 2.

Daniel Balch, '45,
 William Brown, '45,
 Daniel S. Richardson, †'45, *President*,
 Zadock Rogers.

WARD 3.

Hapgood Wright, '45,
 Isaac Farrington,
 Joel Powers,
 Franklin Mead.

WARD 4.

Josiah Sawtell, '45,
 Solon Stevens,
 David J. Moody,
 William Fletcher.

WARD 5.

Amos Hyde, '45,
 Horatio G. F. Corliss, '44,
 Jonathan Bowers, '36,
 Charles M. Short.

WARD 6.

Lorenzo P. Wright, '45,
 John L. Fitts, '39, '40,
 Lewis Packard,
 Columbus J. Hubbard.

JOHN G. LOCKE, *Clerk.***1847.****Mayor:**

JEFFERSON BANCROFT, '39, '40, *'41, *'42, †'46.

Aldermen:

George Bragdon,
 Joseph Butterfield, *'46,
 Linus Child,
 James Fenno, '45,

Elisha Huntington, †'37, †'38,
 †'39, †'40, †'41, †'44, †'45,
 Sewall G. Mack, '43, '44,
 Stephen Mansur, '36, '39, *'40,
 Josiah Sawtell, '45, '46.

THOMAS ORDWAY, *City Clerk.***Common Council:****WARD 1.**

William Conihe,
 James C. Crombie,
 David S. Bachelder,
 Jesse Huse.

WARD 2.

Samuel W. Brown, '40, '41,
 Hannibal Powers,
 William Newman,
 Otis L. Allen.

WARD 3.

Joel Powers, '46,
 Franklin Mead, '46,
 Isaac Farrington, '46,
 Samuel G. Davis.

WARD 4.

Joel Adams, *President*,
 Horatio Fletcher,
 Solon Stevens, '46,
 Stephen A. Coburn.

WARD 5.

Ignatius Tyler,
 Edward C. Johnson,
 Elihu Gates,
 Charles M. Short, '46.

WARD 6.

Thomas Wentworth,
 Isaac N. Parker,
 John R. Southwick,
 Isaiah Morse.

JOHN G. LOCKE, *Clerk.*

1848.**Mayor:**

JEFFERSON BANCROFT, '39, '40, * '41, * '42, † '46, † '47.

Aldermen:

David Dana, '36, '38,
 Erastus Douglass, '36, '38,
 Jacob Graves, resigned in June,
 William Newman, '47,

Gilman N. Nichols, '39, '45, '46,
 Daniel S. Richardson, † '45, † '46,
 Josiah Sawtell, '45, '46, * '47,
 O. M. Whipple, * '36, * '38, * '39, * '45.

THOMAS ORDWAY, *City Clerk.***Common Council:****WARD 1.**

William Conihe, '47,
 James C. Crombie, '47,
 Jesse Huse, '47,
 Gerry Wilson.

WARD 2.

Otis L. Allen, '47,
 William H. Flagg,
 John Nesmith, '39, '40, '42,
 Hannibal Powers, '47.

WARD 3.

Alfred Gilman, '43,
 Thomas Hopkinson, '38, '39, *President*,
 Ransom Reed,
 Nathaniel Critchett, '41, '42.

WARD 4.

John Avery,
 Otis Allen, '43,
 Abiel Rolfe,
 Horace Howard, '36, '38.

WARD 5.

Ignatius Tyler, '47,
 Elihu Gates, '47,
 Edward C. Johnson, '47,
 Charles M. Short, '46, '47.

WARD 6.

Thomas Wentworth, '47,
 Isaac N. Parker, '47,
 Jeremiah M. Currier,
 Horace Parmenter.

JOHN G. LOCKE, *Clerk.***1849.****Mayor:**

JOSIAH B. FRENCH, '36, '42.

Aldermen:

James B. Francis,
 Cyril French, '36, * '41, * '42, * '43,
 James H. B. Ayer,
 Daniel D. Crombie,

Daniel Carter,
 George Brownell, '36, '37, * '38,
 Artemas L. Brooks,
 Joseph Bedlow, * '40.

THOMAS ORDWAY, *City Clerk.***Common Council:****WARD 1.**

Jesse Huse, '47, '48, resigned Feb.,
 William A. Richardson, elected Mar.,
 Gerry Wilson, '48,
 John W. Smith,
 Alfred S. Saunders.

WARD 2.

William H. Flagg, '48,
 Ivers Taylor,
 Isaac S. Morse, resigned,
 Ambrose Lawrence.

WARD 3.

Alfred Gilman, '43, '48,
 Elisha Davis,
 James Dinsmoor,
 Andrew C. Wheelock.

WARD 4.

Nathaniel B. Favor,
 Caleb Crosby,
 Ezekiel Wright,
 Waldo A. Fisher.

WARD 5.

Maynard Bragg,
 Joshua Decatur,
 Abram T. Melvin,
 W. W. Morse.

WARD 6.

William Lamson, Jr.,
 Jeremiah M. Currier, '48,
 George S. Wright,
 John Aiken, * '37, * '41, *President.*

GEORGE A. BUTTERFIELD, *Clerk.*

1850.**Mayor:****JOSIAH B. FRENCH**, '36, '42, †'49.**Aldermen:**

James H. B. Ayer, *'49,
 Joseph Bedlow, *'40, *'49,
 Daniel D. Crombie, *'49,
 James B. Francis, *'49,

Philip Hardy,
 John Mixer, '36, '38,
 Josiah G. Peabody,
 James Townsend, '42.

THOMAS ORDWAY, *City Clerk.***Common Council:****WARD 1.**

John W. Smith, '49,
 Daniel R. Kimball,
 James Watson,
 Jonathan Smothers.

WARD 2.

Ivers Taylor, '49, *President*,
 George Gardner,
 Samuel Lawrence, 2d,
 Samuel J. Varney.

WARD 3.

Jonathan Page,
 John Tripp,
 Fordyce Coburn,
 Joshua Merrill.

GEO. A. BUTTERFIELD, *Clerk*, res'd May.**WARD 4.**

Abner W. Buttrick, '40, '44, '45,
 Caleb Crosby, '49,
 Benjamin Goddard,
 Nathaniel B. Favor, '49.

WARD 5.

George P. Elliot,
 William Fiske, '37, '38, '41,
 George W. Worthen,
 Maynard Bragg, '49.

WARD 6.

Albert Mallard,
 Stephen P. Sargent,
 George S. Wright, '49,
 Wm. Lamson, Jr., '49, res'd May.

WM. LAMSON, JR., elected May.

1851.**Mayor:****JAMES H. B. AYER**, *'49, *'50.**Aldermen:**

William Fiske, '37, '38, '41, '50,
 Ambrose Lawrence, '49,
 James Townsend, '42, *'50,
 Philip Hardy, *'50,

William North, '37,
 Abiel Rolfe, '48,
 Lucius A. Cutler,
 Joshua Converse, '40.

THOMAS ORDWAY, *City Clerk.***Common Council:****WARD 1.**

James Watson, '50,
 Jonathan Smothers, '50,
 Charles B. Coburn, '44,
 Stephen Moar.

WARD 2.

Linus Child, *'47,
 George Gardner, '50, *President*,
 Samuel J. Varney, '50,
 Zachariah B. Caverly.

WARD 3.

Fordyce Coburn, '50,
 William Twichell,
 Darius C. Brown,
 Benjamin C. Sargeant.

WARD 4.

Benjamin Goddard, '50,
 Richard Dennis,
 Holland Streeter,
 Solomon D. Emerson.

WARD 5.

George P. Elliot, '50,
 Edward Fifield,
 John N. Ford,
 Theodore H. Sweetser.

WARD 6.

George W. Worthen, '50,
 George W. Jones, died Sept.,
 Stephen P. Sargent, '50,
 Albert Mallard, '50.

WILLIAM LAMSON, JR., *Clerk.*

1852.

Mayor:

ELISHA HUNTINGTON, †'37, †'38, †'39, †'40, †'41, †'44, †'45, *'47.

Aldermen:

Joseph Bedlow, *'40, *'49, *'50,
Joseph M. Bullens,
Samuel Burbank, '40, '41,
Joseph B. V. Coburn,Wm. Fiske, '37, '38, '41, '50, *'51,
William North, '37, *'51,
Alpha Stevens,
Samuel J. Varney, '50, '51.THOMAS ORDWAY, *City Clerk*.

Common Council:

WARD 1.

Rufus Rogers,
John C. Smith,
Jeremiah Clark,
Paul Hill.

WARD 2.

Paul Perkins,
Milton Bonney,
William Hovey,
Zachariah B. Caverly, '51.

WARD 3.

Darius C. Brown, '51,
William Twitchell, '51,
Benjamin C. Sargeant, '51, *President*,
Michael B. Caswell.

WARD 4.

Holland Streeter, '51,
Elbridge Livingston,
Abram French,
Willard Minot.

WARD 5.

Edward Fifield, '51,
Phineas Whiting, '41,
George W. Patterson,
Jonathan Kendall, '42, '44.

WARD 6.

Leonard W. Jaquith,
Seth Pooler,
Caleb G. Weaver,
William C. Parker.WILLIAM LAMSON, JR., *Clerk*.

1853.

Mayor:

SEWALL G. MACK, '43, '44, *'47.

Aldermen:

Elisha Huntington, †'37, †'38, †'39,
†'40, †'41, †'44, †'45, *'47, †'52,
Samuel K. Hutchinson,
Stephen Mansur, '36, '39, *'40, *'47,
Joseph B. V. Coburn, *'52,Ira Spalding, '42, '43,
Joseph M. Bullens, *'52,
Alpha Stevens, *'52,
Joseph White.THOMAS ORDWAY, *City Clerk*.

Common Council:

WARD 1.

Rufus Rogers, '52,
John C. Smith, '52,
Marcus A. Thomas,
James Cook, '36.

WARD 2.

Paul Perkins, '52,
Milton Bonney, '52,
George G. Bumpus,
George W. Stanley.

WARD 3.

Michael B. Caswell, '52,
Calvin Philbrick,
Leonard Brown,
Henry H. Wilder.

WARD 4.

Abram French, '52,
Henry C. Howe,
Joseph S. Grush,
Samuel K. Pickering.

WARD 5.

George W. Patterson, '52,
Wm. A. Richardson, '49, *Presid't*,
Patrick Conlan,
Jonathan Bowers.

WARD 6.

Caleb G. Weaver, '52,
William C. Parker, '52,
George F. Woods,
C. F. Blanchard.WILLIAM LAMSON, JR., *Clerk*.

1854.**Mayor:**

SEWALL G. MACK, '43, '44, *'47, †'53.

Aldermen:

Elisha Huntington, †'37, †'38, †'39, †'40,
 †'41, †'44, †'45, *'47, †'52, *'53,
 J. B. V. Coburn, *'52, *'53, res'd Jan.,
 Samuel K. Hutchinson, *'53,
 Ira Spalding, '42, '43, *'53,

Joseph White, *'53,
 Horatio Fletcher, '47,
 C. F. Blanchard, '53,
 Charles Sperry.

WILLIAM LAMSON, JR., *City Clerk.***Common Council:****WARD 1.**

John C. Smith, '52, '53,
 Paul Hill, '52,
 Marcus A. Thomas, '53,
 Thomas Lennon.

WARD 2.

George W. Stanley, '53,
 William H. Gage,
 Amos A. Taylor,
 William H. Bradley.

WARD 3.

Calvin Philbrick, '53,
 Leonard Brown, '53, declined,
 Darius C. Brown, '51, '52, elected,
 Henry H. Wilder, '53,
 Peter O. C. Frawley.

WARD 4.

Henry C. Howe, '53,
 Joseph S. Grush, '53,
 Samuel K. Pickering, '53,
 Hubbard Wilson.

WARD 5.

William A. Richardson, '49, †'53,
President,
 Jonathan Bowers, '53,
 Patrick Conlan, '53,
 John C. Woodward.

WARD 6.

George F. Woods, '53,
 Charles S. Eastman,
 Levi H. Straw,
 William P. Webster.

LEONARD BROWN, *Clerk.***1855.****Mayor:**

AMBROSE LAWRENCE, '49, '51.

Aldermen:

Wm. Fiske, '37, '38, '41, '50, *'51, *'52,
 Artemas L. Brooks, *'49,
 Daniel Woodward,
 Lorenzo G. Howe,

Andrew T. Nute,
 Abner Frost,
 William S. Johnston,
 Shadrach R. Brackett.

WILLIAM LAMSON, JR., *City Clerk.***Common Council:****WARD 1.**

Maynard Bragg, '49, '50,
 Aaron B. Young,
 Augustus B. Roby,
 George L. Harris.

WARD 2.

William G. Morse,
 George K. Paul,
 Mark H. Cook,
 Joseph A. Patten.

WARD 3.

Alfred Gilman, '43, '48, '49, *President,*
 Daniel Hurd,
 Theodore Warren,
 Stephen K. Fielding.

WARD 4.

Joshua W. Daniels,
 John Bennett,
 Alanson Folsom,
 Francis H. Nourse.

WARD 5.

John C. Woodward, '54,
 Stephen Bartlett,
 Jonathan Johnson,
 Oliver P. Rand.

WARD 6.

Levi H. Straw, '54,
 William T. Whitten,
 Lucien P. Stacy,
 James M. Moore.

LEONARD BROWN, *Clerk.*

1856.**Mayor:**

ELISHA HUNTINGTON, †'37, †'38, †'39, †'40, †'41, †'44,
†'45, †'47, †'52, *'53, *'54.

Aldermen:

Edward Tuck,
Samuel Burbank, '40, '41, *'52,
Charles B. Coburn, '44,
William P. Webster, '54,
Hapgood Wright, '45, '46,

Charles H. Wilder, '37, '44, '45,
O. J. Conant, resigned in March,
James H. Rand,
Jonathan Johnson, elected in
June.

WILLIAM LAMSON, JR., *City Clerk.*

Common Council:**WARD 1.**

Enos O. Kingsley,
Abiel Pevey,
David M. Collins,
Marshall E. Thompson.

WARD 2.

Isaac Hinckley,
Seth Gage,
Peter Flanders, Jr.,
Leonard F. Jewell.

WARD 3.

David Rogers,
Benj. C. Sargeant, '51, †'52, *President*,
Henry H. Carroll,
Peter Powers.

WARD 4.

Francis H. Nourse, '55,
Alden B. Buttrick,
Holland Streeter, '51, '52,
James Sands.

WARD 5.

Frederick Holton,
Isaac Place,
Albert Wheeler,
Abiel Rolfe, '48, *'51.

WARD 6.

Eliphalet Hills,
Jonathan P. Folsom,
James K. Fellows, '37,
John K. Chase.

JAMES J. MAGUIRE, *Clerk.*

1857.**Mayor:**

STEPHEN MANSUR, '36, '39, *'40, *'47, *'53.

Aldermen:

Andrew T. Nute, *'55,
John C. Woodward, '54, '55,
Jonathan Smothers, '50, '51,
Samuel W. Stickney,

John B. Tuttle,
Francis H. Nourse, '55, '56,
Jonathan Johnson, '55, *'56,
John Nesmith, '39, '40, '42, '48.

WILLIAM LAMSON, JR., *City Clerk.*

Common Council:**WARD 1.**

Abiel Pevey,
Stephen T. Stanley,
Charles A. Welch,
George F. Scribner.

WARD 2.

William G. Morse, '55,
William D. Vinall,
Temple Tebbetts,
James M. Howe.

WARD 3.

Benjamin C. Sargeant, '51, †'52, †'56,
David Rogers, '56,
Henry H. Carroll, '56,
Nathan Allen.

WARD 4.

Caleb Crosby, '49, '50,
John F. Howe,
John C. Jepson,
Alanson Nichols.

WARD 5.

Frederick Holton, '56, *President*,
William H. Wiggins,
William Goodale,
Charles Hubbard.

WARD 6.

Erastus Boyden,
Jonathan Kimball,
Robert J. Garrett,
William Nichols.

HENRY A. LORD, *Clerk.*

1858.**Mayor:**

ELISHA HUNTINGTON, †'37, †'38, †'39, †'40, †'41, †'44,
†'45, †'47, †'52, *'53, *'54, †'56.

Aldermen:

Sewall G. Mack, '43, '44, *'47, †'53, †'54,
Samuel W. Stickney, *'57,
Abiel Pevey, '56, '57,
Jeremiah P. Jewett, '42,

Joseph M. Dodge, '37,
Harvey Silver,
Albert Wheeler, '56,
Edwin A. Alger.

JOHN H. McALVIN, *City Clerk.*

Common Council:**WARD 1.**

Charles Wilkins,
John M. Maynard,
John E. Webb,
William Barnard.

WARD 2.

Edward Tuck, *'56,
William P. Webster, '54, *'56,
Andrew Blood,
William F. Salmon.

WARD 3.

Benjamin C. Sargeant, '51, †'52, †'56,
'57, *President*,
Hanover Dickey,
Joseph A. Brabrook,
Benjamin S. Butterworth.

WARD 4.

Enoch P. Young,
Zephaniah Goward,
Jesse Blake,
John F. Howe, '57.

WARD 5.

Willard Dudley,
Samuel T. Manahan,
Isaac Page,
John Avery, 2d.

WARD 6.

William Nichols, '57,
Alpha B. Farr, resigned in Jan.,
Leonard Brown, '53, '54, elec'd Feb.
Erastus Boyden, '57,
James H. Rand, *'56, resign'd May,
Eben'r Burgess, elected in June.

GEORGE GARDNER, *Clerk.*

1859.**Mayor:**

JAMES COOK, '36, '53.

Aldermen:

Lorenzo G. Howe, *'55,
Samuel J. Varney, '50, '51, *'52,
Paul Hill, '52, '54,
Ambrose Lawrence, '49, '51, †'55, re-
signed in April,
Darius C. Brown, '51, '52.

John F. Howe, '57, '58,
Joshua Converse, '40, *'51, re'd Apr.
J. P. Folsom, '56, resign'd in April,
Edward Tuck, *'56, '58, elec'd May,
Sam'l T. Manahan, '58, elec'd May,
Jonathan Ladd, elected in May.

JOHN H. McALVIN, *City Clerk.*

Common Council:**WARD 1.**

John E. Webb, '58,
Charles Wilkins, '58,
William Barnard, '58,
William D. Blanchard.

WARD 2.

W. P. Webster, '54, *'56, '58, *President*,
William F. Salmon, '58,
James M. Howe, '57,
David Nichols.

WARD 3.

George Hobson,
Asahel D. Puffer,
John Willoughby,
Benjamin S. Butterworth, '58.

WARD 4.

Caleb Crosby, '49, '50, '57,
Jesse Blake, '58,
George W. Partridge,
George W. Young.

WARD 5.

Horatio G. F. Corliss, '44, '46,
Luther B. Morse,
Josiah G. Peabody, *'50,
William Goodale, '57.

WARD 6.

Charles A. Stott,
Levi Sprague,
Ebenezer Burgess, '58,
Leonard Brown, '53, '54, '58.

GEORGE GARDNER, *Clerk.*

1860.**Mayor:**

BENJAMIN C. SARGEANT, '51, †'52, †'56, '57, †'58.

Aldermen:

Edward F. Watson, '40, '41, *'44, *'45,
Lorenzo G. Howe, *'55, *'59,
James Watson, '50, '51,
William G. Morse, '55, '57,

Henry H. Wilder, '53, '54,
Abner Frost, *'55,
Samuel T. Manahan, '58, *'59,
William S. Gardner.

JOHN H. McALVIN, *City Clerk.*

Common Council:**WARD 1.**

Benjamin S. Ireson,
Enoch Quimby,
John P. Slocum,
Amos H. Foster.

WARD 2.

Henry P. Clough,
Alfred S. Saunders, '49,
Wm. F. Salmon, '58, '59, *President,*
Joseph L. Sargent.

WARD 3.

George Hobson, '59,
Josiah B. Fielding,
Henry P. Perkins,
Hocum Hosford.

WARD 4.

George W. Partridge, '59,
George W. Young, '59,
Morrill M. Bohonan,
Caleb Crosby, '49, '50, '57, '59.

WARD 5.

Josiah G. Peabody, *'50, '59,
Sullivan L. Ward,
George F. Morey,
William H. Lamson.

WARD 6.

William Nichols, '57, '58,
Samuel T. Lancaster,
Charles A. Stott, '59,
Foster Nowell.

GEORGE GARDNER, *Clerk.*

1861.**Mayor:**

BENJAMIN C. SARGEANT, '51, †'52, †'56, '57, †'58, †'60.

Aldermen:

Samuel T. Manahan, '58, *'59, *'60,
Jonathan P. Folsom, '56, *'59,
James Watson, '50, '51, *'60,
William G. Morse, '55, '57, *'60,
Hocum Hosford, '60,

Aldis L. Waite,
David Whitney, declined acceptance,
Sager Ashworth, elected in May,
William S. Gardner, *'60.

• JOHN H. McALVIN, *City Clerk.*

Common Council:**WARD 1.**

Frank E. Jewett,
M. Gilbert Perkins,
Jacob Baron,
William D. Blanchard, '59.

WARD 2.

Alfred S. Saunders, '49, '60,
Joseph L. Sargent, '60,
Henry P. Clough, '60,
Henry S. Orange.

WARD 3.

William L. North, *President,*
George W. Norris,
Henry P. Perkins, '60,
James G. Morrison.

WARD 4.

Joseph Cater,
Joseph B. Keyes,
Morrill M. Bohonan, '60,
Abel M. Ayer.

WARD 5.

Sullivan L. Ward, '60,
Samuel Beck,
William H. Parker,
George F. Morey, '60.

WARD 6.

Samuel T. Lancaster, '60,
Foster Nowell, '60,
Elon A. Sanborn,
George E. Dana.

GEORGE GARDNER, *Clerk.*

1862.**Mayor:****HOCUM HOSFORD, '60, *'61.****Aldermen:**

Mertoun C. Bryant,
 Edwin A. Alger, *'58,
 James B. Francis, *'49, *'50,
 William A. Burke,

Isaac F. Scripture,
 Aldis L. Waite, *'61,
 Albert Wheeler, '56, *'58,
 Jona. P. Folsom, *'56, *'59, *'60.

JOHN H. McALVIN, *City Clerk.***Common Council:****WARD 1.**

Amos D. Wright,
 Frank E. Jewett, '61,
 Horatio G. Burgess,
 Charles F. Hard.

WARD 2.

Benedict O. Carpenter,
 William T. McNeill,
 Lorenzo G. Howe, *'55, *'58, *'60,
 Henry S. Orange, '61.

WARD 3.

George W. Norris, '61,
 Edmund D. Fletcher,
 Everett W. French,
 John Quinn.

WARD 4.

Joseph B. Keyes, '61,
 George Runels,
 John Pettingell,
 Hubbard Willson, '54.

WARD 5.

Rollin C. Downs,
 Albert Mallard, '50, '51,
 Edward Fifield, '51, '52,
 Cleveland J. Cheney.

WARD 6.

Geo. F. Richardson, *President*,
 Albion J. Dudley,
 Elon A. Sanborn, '61,
 Frederick Frye.

GEORGE GARDNER, *Clerk.***1863.****Mayor:****HOCUM HOSFORD, '60, *'61, †'62.****Aldermen:**

James B. Francis, *'49, *'50, *'62,
 Edwin A. Alger, *'58, *'62,
 Abiel Pevey, '56, '57, *'58,
 William A. Burke, *'62,

Isaac F. Scripture, *'62,
 Otis Allen, '43, '48,
 Albert Wheeler, '56, *'58, *'62,
 William Nichols, '57, '58, '60.

JOHN H. McALVIN, *City Clerk.***Common Council:****WARD 1.**

Charles F. Hard, '62,
 Amos D. Wright, '62,
 John Cosgrove,
 William A. Wright.

WARD 2.

George F. Sawtell,
 Henry S. Orange, '61, '62,
 Hugh McEvoy,
 Nathaniel Stearns.

WARD 3.

Everett W. French, '62,
 Fordyce Coburn, '50, '51,
 Edmund D. Fletcher, '62,
 John Quinn, '62.

WARD 4.

Atwell F. Wright,
 Josiah Gates,
 William Stafford,
 John McCann.

WARD 5.

James C. Ayer,
 Charles W. Saunders,
 Cyrus H. Latham,
 John E. Downs.

WARD 6.

Geo. F. Richardson, †'62, *Pres.*,
 Albion J. Dudley, '62,
 Benedict O. Carpenter, '62,
 Frederick Frye, '62.

GEORGE GARDNER, *Clerk.*

1864.**Mayor:**

HOCUM HOSFORD, '60, *'61, †'62, †'63.

Aldermen:

William S. Southworth,
James B. Francis, *'49, *'50, *'62, *'63,
Dana B. Gove,
William T. McNeill, '62,

George W. Norris, '61, '62,
George Runels, '62,
Cyrus H. Latham, '63,
George F. Richardson, †'62, †'63.

JOHN H. McALVIN, *City Clerk.***Common Council:****WARD 1.**

Alden B. Watson,
Lewis L. Perrin,
Frederick S. Tukey,
John Cosgrove, '63.

WARD 2.

George Ripley, *President*,
Andrew F. Jewett,
Artemas S. Young,
Hoyt W. Hilton.

WARD 3.

Samuel N. Wood,
Charles W. Dodge,
Joseph S. Pollard,
James G. Morrison, '61.

WARD 4.

Atwell F. Wright, '63,
Daniel Churchill,
William W. Sherman,
Francis Jewett.

WARD 5.

John E. Downs, '63,
Thos. G. Gerrish, res'd June 14,
Charles Hubbard, '57,
Cleveland J. Cheney, '62.

WARD 6.

Levi Sprague, '59,
Tobias L. P. Lamson,
Addison Putnam,
Albion J. Dudley, '62, '63.

GEORGE GARDNER, *Clerk.***1865.****Mayor:**

JOSIAH G. PEABODY, *'50, '59, '60.

Aldermen:

Edw'd F. Watson, '40, '41, *'44, *'45, *'60,
George W. Norris, '61, '62, *'64,
Dana B. Gove, *'64,
William T. McNeill, '62, *'64,

Henry H. Wilder, '53, '54, *'60,
Josiah Gates, '63,
Cyrus H. Latham, '63, *'64,
William Brown, '45, '46.

JOHN H. McALVIN, *City Clerk.***Common Council:****WARD 1.**

Alden B. Watson, '64,
Lewis L. Perrin, '64,
George N. Osgood,
John R. Southwick, '47.

WARD 2.

George Ripley, †'64, *President*,
Andrew F. Jewett, '64,
Julian V. Keyes,
Chester W. Rugg.

WARD 3.

Joseph S. Pollard, '64,
Charles W. Dodge, '64,
Edward C. Rice,
Frederick T. North.

WARD 4.

Francis Jewett, '64,
Benjamin Walker,
Benjamin L. Googins,
John Pearson.

WARD 5.

Charles Hubbard, '57, '64,
James Kent,
Simeon D. Osterhoudt,
James Foster.

WARD 6.

Tobias L. P. Lamson, '64,
Luke C. Dodge,
Gustavus A. Gerry,
James M. Moore, '55.

GEORGE GARDNER, *Clerk.*

1866.

Mayor:

JOSIAH G. PEABODY, *'50, '59, '60, †'65.

Aldermen:

Samuel A. Brown,
 Albert B. Plimpton,
 John R. Southwick, '47, '65,
 Joseph L. Sargent, '60, '61,

Charles W. Dodge, '64, '65,
 Josiah Gates, '63, *'65,
 Henry M. Hooke,
 Albion J. Dudley, '62, '63, '64.

JOHN H. McALVIN, *City Clerk.*

Common Council:

WARD 1.

William A. Hodge,
 William A. Wright, '63,
 Jacob Baron, '61,
 Rollin C. Downs, '62.

WARD 2.

Andrew F. Jewett, '64, '65,
 George H. Whitmore,
 Julian V. Keyes, '65,
 Chester W. Rugg, '65.

WARD 3.

Edward C. Rice, '65,
 Frederick T. North, '65,
 James N. Pinkham,
 Oliver W. Smith.

WARD 4.

Benjamin L. Googins, '65,
 Alfred Scott,
 Thomas F. Burgess,
 Benjamin Walker, '65.

WARD 5.

Robert H. Butcher,
 John T. Lee,
 George L. Huntoon,
 Jonathan Johnson, '55, *'56, *'57.

WARD 6.

Gustavus A. Gerry, '65, *President*,
 Luke C. Dodge, '65,
 Charles A. Kimball,
 Alfred H. Chase.

GEORGE GARDNER, *Clerk.*

1867.

Mayor:

GEORGE F. RICHARDSON, †'62, †'63, *'64.

Aldermen:

Charles B. Coburn, '44, '51, *'56,
 Hocum Hosford, '60, *'61, †'62, †'63, †'64,
 John R. Southwick, '47, '65, *'66,
 Joseph L. Sargent, '60, '61, *'66,

Edward C. Rice, '65, '66,
 Abner W. Buttrick, '40, '44, '45, '50,
 William H. Parker, '61.
 Albion J. Dudley, '62, '63, '64, *'66.

JOHN H. McALVIN, *City Clerk.*

Common Council:

WARD 1.

John Shepard,
 Calvin Sawtell,
 Foster Wilson,
 M. Gilbert Perkins, '61.

WARD 2.

Gustavus A. Gerry, '65, †'66, *President*,
 Ruel J. Walker,
 William Dobbins,
 Silas Tyler, Jr.

WARD 3.

Jonathan P. Folsom, '56, *'59, *'61,
 Frederick T. North, '65, '66,
 Samuel D. Prescott,
 Nathan M. Wright.

WARD 4.

John B. Hunt,
 John Q. A. Hubbard,
 Alfred Scott, '66,
 Thomas F. Burgess, '66.

WARD 5.

George L. Huntoon, '66,
 George S. Cheney,
 James Foster, '65,
 John T. Lee, '66.

WARD 6.

Alfred H. Chase, '66,
 James Lawton,
 John N. Peirce, Jr.,
 Foster Nowell, '60, '61.

GEORGE GARDNER, *Clerk.*

ORDINANCES

PASSED SUBSEQUENT TO THE

ORDINANCES OF THE CITY OF LOWELL,

ORDAINED OCTOBER 28, 1863.

CITY OF LOWELL.

In the year Eighteen Hundred and Sixty-Five.

AN ORDINANCE AMENDING CHAPTER TWO OF THE ORDINANCES OF THE
CITY OF LOWELL.

Be it Ordained by the City Council of the City of Lowell, as follows:

SECTION 1. That Chapter Two of the Ordinances of the City be amended by striking out the Fifth Section and substituting therefor the following words: "The fees for the services of said Superintendent and Undertakers at the funeral of any person to be buried within the city, of the age of twelve years and over, shall be four dollars, and if under twelve years of age, three dollars and fifty cents, which fees shall be in full for digging the grave, attending with the funeral car at the funeral, conveying and burying the corpse, and obtaining and returning the facts required by Chapter Twenty-One of the General Statutes; provided, however, that the fees for the burial of any pauper, if over twelve years of age, shall be three dollars, and if under that age, two dollars; provided, further, that the said Superintendent and Undertakers shall collect the additional fees of twenty-five cents for the use of the funeral car which may be used in the burial of any person within the city, and ten cents per mile for any distance that the same may be driven from and to the city. And it shall be the duty of the several Undertakers to pay over the said fees for the use of the funeral car to the Superintendent of Burials monthly, and the said Superintendent shall pay the same into the City Treasury before he shall be entitled to his salary."

In Common Council, April 11, 1865.

Passed to be ordained.

GEORGE RIPLEY, President.

In Board of Aldermen, April 11, 1865.

Passed to be ordained.

J. G. PEABODY, Mayor.

CITY OF LOWELL.

In the year Eighteen Hundred and Sixty-Five.

AN ORDINANCE TO AMEND CHAPTER FOURTEEN OF THE ORDINANCES OF THE
CITY OF LOWELL.

Be it Ordained by the City Council of the City of Lowell, as follows:

SECTION 1. The fares for the conveyance of passengers in any licensed Hackney Coaches and other carriages, shall not exceed the following rates, viz.: For conveying one or more adult passengers from one place to another, in the city, thirty-five cents each, except between the hours of ten o'clock, P. M., and five o'clock, A. M., when the rate of fare shall be fifty cents each; for each child under twelve and over three years of age, fifteen cents may be charged; and for children not over three years of age, accompanied by their parents or guardians, there shall be no charge. For the charges aforesaid each passenger may carry or may have with him or her, baggage not exceeding seventy-five pounds in weight; and for additional baggage not exceeding fifty pounds, five cents extra may be charged.

SECTION 2. The sixth section of the Fourteenth Chapter of the Ordinances of the City, passed and ordained October 28, 1863, is hereby repealed.

In Common Council, April 25, 1865.

Passed to be ordained.

GEORGE RIPLEY, President.

In Board of Aldermen, April 25, 1865.

Passed to be ordained.

J. G. PEABODY, Mayor.

CITY OF LOWELL.

In the year Eighteen Hundred and Sixty-Six.

AN ORDINANCE TO SECURE THE ENFORCEMENT OF SANITARY REGULATIONS.

Be it Ordained by the City Council of the City of Lowell, as follows:

SECTION 1. A Board of Health shall be appointed annually in the month of January or February, or at any time when a vacancy may exist, consisting of the Mayor (*ex-officio*), two Aldermen, who shall be appointed by the Mayor, and three members of the Common Council, who shall be appointed by the President of that Board, with the powers and duties assigned to Boards of Health by the Statutes of the Commonwealth of Massachusetts.

SECTION 2. The Board of Health may make all regulations which they may deem necessary in regard to the removal and abatement of filth, rubbish, nuisances and causes of disease, and shall have power to require such aid from the City Marshal, Police force, and the Superintendent of Streets, as may be necessary to search out and cause the removal of such sources and causes of disease; to call upon the City Physician for advice or services in his professional capacity, or to appoint a physician to the Board; and to perform any other acts and duties which may to them seem necessary for the health of the City, provided always, that such acts shall be in conformity to the Statutes of the Commonwealth, and the Ordinances of the City of Lowell.

In Common Council, March 13, 1866.

Passed to be ordained.

GUSTAVUS A. GERRY, President.

In Board of Aldermen, March 13, 1866.

Passed to be ordained.

J. G. PEABODY, Mayor.



FORTY-FIRST
ANNUAL REPORT
OF THE
SCHOOL COMMITTEE
OF THE
CITY OF LOWELL,
TOGETHER WITH THE
THIRD ANNUAL REPORT
OF THE
Superintendent of Public Schools.
1866.



LOWELL:
STONE & HUSE, PRINTERS, DAILY COURIER OFFICE, 21 CENTRAL STREET.
1867.

CITY OF LOWELL.

IN SCHOOL COMMITTEE,

January 5th, 1867.

Hon. JOHN A. GOODWIN, Chairman of the Committee on Reports, presented the Annual Report of the School Committee for the year 1866. It was read, accepted, and unanimously adopted as the Report of the whole Committee.

The Superintendent submitted his third Annual Report, which was read and accepted.

It was voted that thirty-five hundred copies of the above Reports be printed under the direction of the Chairman of the Committee on Reports, and the Secretary of this Board.

ABNER J. PHIPPS, *Secretary.*

R E P O R T .

THE School Committee, required to make annually a public report, can best perform that duty by adopting the report of the Superintendent of Public Schools, prefacing it with such general remarks as may be suggested. It is the business of that officer to keep himself familiar with the operations of each school, both as to its own especial affairs and as to its relative position in our educational system. Devoting his whole time to his duties, he must acquire a detailed knowledge of the various schools, singly and collectively, such as no member of the Committee can be expected to attain. When therefore, at the close of the year, this officer makes to the Committee a formal presentation of his views, he may be presumed to give the information desired by the public, in the most acceptable and convenient form. The present year, therefore, the Committee leave the Superintendent's report to form the chief part of their annual communication to their constituents, presenting it exactly as made to them, attempts at *reconstruction* having of late been out of favor, here and elsewhere.

During the year, the educational affairs of the city have exhibited nothing out of the ordinary course. A kind Providence has preserved the lives of the Committee, Superintendent and Teachers, and has vouchsafed a fair measure of health to the pupils. During the year, nine teachers have resigned, viz:—

CHARLES MORRILL, . . .	Principal of Green Grammar School.
GORHAM D. WILLIAMS,	Assistant in High School.
EMMA A. BATTLES,	Assistant in Moody School.
ABBY M. EDGELL,	Assistant in Varnum School.
EMILY T. DICKERMAN,	Teacher of Primary No. 8.
ADELINE REA,	Teacher of Primary No. 14.
HANNAH H. CURRIER,	Teacher of Primary No. 17.
NELLIE L. ASHWORTH,	Teacher of Primary No. 23.
SARAH P. PEASLEE,	Teacher of Primary No. 40.

Also, one Primary Teacher was not re-chosen at the annual election. The Superintendent's report will show the teachers elected during the year, and those continued in service.

The vacancy in the High School has been temporarily filled by Charles A. Chase, who has done himself so much credit in the position and has so won the confidence of the Committee, that at the close of the year they have elected him principal of the Green School to succeed Charles Morrill, who, after a long, and highly creditable and successful service as teacher, is now elected Superintendent of Public Schools to commence service with the ensuing municipal year.

Mr. Morrill requires no introduction to our community.* His long record of successive annual elections and of twenty-nine years of continuous and successful service here as teacher, says more in his praise than can be condensed into a paragraph of this report. We heartily commend him in his new capacity to our citizens and bespeak for him their cordial co-operation. A department which requires an investment in real-estate of some \$200,000, an annual outlay of more than \$80,000 and employs ninety-eight specially educated men and women at liberal wages, would in almost any business be held, *without question*, to require an active, vigilant supervisor. When to the foregoing features we add the general oversight of six thousand children scattered through a great city, and the educational oversight of the second municipality of the Commonwealth, the constant services of a Superintendent would *seem*, and experience shows them to *be*, as important in our school system as in a cotton-mill, a railway or a machine-shop. Those who suppose the office to be a *sinccure* are respectfully referred to the retiring Superintendent's description of his labors for the present year as given in his report. An officer who finds that amount of work to do and does it *well*, cannot easily be considered superfluous or the subject of unnecessary expense. The result of the Committee's experience is such

* Mr. Morrill, at the age of five years, came to this place in 1823 with his father, Jonathan Morrill, Esq., the first Postmaster of Lowell. In 1838-9 he was principal of Dracut Academy in Centralville, now a part of this city. In 1839 he was elected assistant in the North Grammar School; he was afterwards assistant in the Moody School, of which his brother, Otis H. Morrill, Esq., was principal. In February, 1845, he was elected principal of the Green School, which post he has ever since held.

that they would sooner think of abandoning almost any other feature of our school organization than the office of Superintendent.

After a long and thorough examination of the four candidates that presented themselves, the sub-committee on teachers unanimously awarded the first rank to Levi S. Burbank, present principal of the High School at Westboro', a teacher of large experience and high reputation, especially with respect to the natural sciences. The Committee find no lack of candidates for teacherships, but those with any especial qualifications are not plenty. The teacher not only needs a good education, but should be a person of reading and of general information. One, for instance, who never reads the newspapers will rarely or never prove an intelligent teacher. There certainly is need of improvement, as at our last general examination, of thirty-seven candidates, all graduates of our own schools, not more than one could correctly bound the city of Lowell;* the previous year, of forty-four candidates, not one in five could answer the simplest questions concerning the history of the city of their residence and education, where they aspired to prepare and inform the rising generation for the duties of citizenship. (Some portion of the blame may be due the Committee of this and former years, for not having prescribed in *every* grade of our schools, some degree of instruction in the history

* In July, one hundred and fifty-seven candidates were presented by the Grammar Schools for admission to the High School. Of these, not one was able to bound the city of Lowell. Many resented the asking of such a question, replying—"That isn't in our book!"

and geography of our city, our county of such historic fame, and of our state. The fact is noted here for the benefit of our successors).

Not only should teachers be well educated in books and in *things*, but they should have the teaching faculty. This rarely comes by nature, nor can it be acquired by all who desire it. Many a profound student of Algebra or Geometry cannot teach Vulgar Fractions, and not a few proficient in Trigonometry would totally fail as teachers of Addition or Subtraction. The power to teach, then, does not depend on scholarship. It must be worked for and *achieved*, like skill in any other calling. The candidate for the ministry must study Theology, the physician must have accomplished a long and thorough course of medical studies and researches before he receives his diploma, and the embryo lawyer must serve almost half as long as Jacob served for Rachel before he can help his first client get convicted. In the manual arts, too, a course of training is considered necessary before the beginner becomes a journeyman. Indeed, teaching is the one great if not only exception to the rule. This delicate, difficult and most important calling is too often thought to require no preparation beyond a common school education. Hence, every year, many young women on graduating from the High School immediately apply for permanent teacherships, and through themselves, their relatives and their friends, keep a constant pressure on the Committee to secure the desired means of support.

Through the occasional election of such applicants, there can be found in some of our schools rude, old-

fashioned methods of teaching, or rather of *hearing* lessons, that have long been obsolete in most intelligent villages. During the past year some of our teachers have even been found compelling their pupils to commit to memory the pages of their text-book in History, and to be laboring under the delusion that this operation was *teaching* History. With the liberal salaries paid, is it not time that the untrained and inexperienced should no longer be placed over our schools? The state has provided four Normal Schools of high character, where gratuitous instruction is given to those who wish to become teachers; other institutions for the same purpose are found in various directions. If a young woman has not taken pains to fit herself especially for teaching, if she has not availed herself of the free instruction of the Normal Schools or has not acquired experience at the expense of some other community, is it not time that she should be refused a place even among our candidates for examination? When our young men on leaving the High School are at once selected to preach, or practice Law or Physic, to manage mills or engines, to be cashiers or treasurers, or to take charge of shops or railways, it will be consistent to simultaneously call the graduates of the other sex to our teacherships, but not till then. In some places, the evil complained of has been carried so far that the public teacherships have been mainly regarded as sinecures where the female relatives and friends of the Committee might accumulate a little dowry. It is hoped that no person will ever find reason to say the same of Lowell.

During the past year the salaries of the female teachers have been slightly increased, being now \$450 a year for those who have served at least two years. Still this advanced rate does not afford a greater net income, to say the least, than the smaller salary of six years ago. Sometimes complaint is made of the pay of teachers because they work but six hours a day. Now it must be remembered that all good teachers spend much of their surplus time in general reading and in other labors connected with future teaching. The exhausting nature of their work, too, unfits them for devoting their leisure to any other business. They would teach more hours, also, if the Committee should find it for the good of the pupils to have longer daily sessions. Placing their whole time at the disposal of the school, they of course must be paid for the whole. The argument for low wages, on account of the short time spent in the school-room, will, naturally, find little favor with those citizens who advocate a reduction of the hours of labor.

The Committee trust that the remarks of the Superintendent upon the employment of children in our mills, will be duly considered by those especially concerned, and by the incoming school board. His exhibition of the evils of absence and truancy, will afford a subject for serious deliberation and, it is to be hoped, for efficient action. It is indeed mortifying that the High School suffers from this cause to the extent it does. The fact that during the two quarters mentioned, the pupils of that school were not all present on one single opening of its daily sessions, shows one of the adverse

influences its teachers have to encounter. The irregular scholar, in that school above all others, keeps back his classmates and injures all with whom he is associated. Perhaps severe penalties for unnecessary absence from this school may be required, to secure the prompt and regular attendance which is essential to its complete success.

During the year special instruction has been continued in writing, on the same plan as the previous year, with great success, as visitors to the High and Grammar Schools have noticed. Instruction in vocal music is now given twice a week in the same schools, by an enthusiastic and highly successful teacher, well-known to our citizens, and of whose public spirit a pleasing case is mentioned by the Superintendent.

Drawing has been introduced into the High School as an optional exercise, although in the opinion of some of the Committee it should be considered as essential as any compulsory branch. The benefit of skill in drawing is constant, yet from the almost universal ignorance of it, but few realize how much they are losing, almost daily and often hourly, for want of it. In a community so eminently practical as ours, it is remarkable that a branch which in every walk of life is so useful as well as elegant, should have become so nearly one of the "lost arts." The Committee trust that from the beginning made, this art will yet be recognized as an indispensable part of an English education, and will be daily practiced in every grade of our schools.

The Committee agree with the Superintendent that our High School should offer a much wider range of study. Geology, which unfolds so many of the wonders of creation, and reveals to us so much of the Maker's power and wisdom at every step we take upon the earth;—Botany, which opens the eye to such an infinitude of beauty, before unappreciated, and which has so much practical usefulness, and which encourages habits and tastes so promotive of health and happiness;—Zoölogy, which makes us familiar with the animal kingdom and supplies the mind with unfailing resources wherever and however it may be situated—these, certainly, should find a place in our regular High School course. Instead of the present superficial study of Physical Geography, there should be a thorough handling of that subject, binding the three branches already named, and their adjuncts, into a harmonious whole.

Chemistry and Natural Philosophy should be so taught that every graduate of the High School would be as familiar with the chemistry and mechanical science of common life and of the principal arts followed by our community, as with those frivolities, fashions and amusements which are so readily learned, whose hard technical terms are so easily mastered and whose details are so exactly remembered. Nor should Astronomy remain the dry, useless branch it now is, but it should be made a *fascination*, and the pupils be led never to look on the evening sky without a lively feeling that it indeed declares "the glory of God," nor without an ability as well as eagerness to make the dullest eye see *how* "the

firmament showeth forth His handiwork." Let these sciences be taught with the thoroughness and enthusiasm with which Mathematics and the Classics now are, and our High School will furnish an English education of far higher quality than ever before. The Committee see indications of progress in this department, and believe that the next board will find the school on an ascending path, gaining every term a wider and wider sweep of the educational horizon.

This school, however, cannot become what it should, until public opinion will permit a great elevation of the standard of admission which usage and classification have established so firmly at its present low point, that no Committee can hope in a single year to work a thorough reformation.

Many scholars enter the High School a year too soon. A large share of the lowest class there should remain longer in the first class of the Grammar Schools. Then, not only would the High School, with its more mature and better prepared pupils, reach heights now beyond its strength, but the Grammar Schools would be *more* than correspondingly elevated. These latter schools are doing well the work assigned them and are meeting with gratifying success, but the premature transfer of their best classes to the High School, reduces them far below the position they should occupy. General History, Drawing, and the elements of the Natural Sciences should all be embraced in the Grammar School course, a course beyond which so many of our young men and young women are unable to proceed. The interest of this lat-

ter class require that the Grammar Schools furnish a more advanced course than at present. If, then, a part of the lowest work of the High School should be transferred to the Grammar Schools, both grades of schools and all classes of scholars would be greatly benefited.

In the course of study indicated for the Grammar Schools, it is hardly just to say that any one branch should be regarded as more important than another. All should receive proportionate attention, and the educational structure be kept harmonious and evenly balanced. It seems, however, with respect to those whose schooling ends with the Grammar Schools, to be quite as important that they should have been made familiar with the world in which they live—its history, its geography, its commerce, its animals and plants and minerals, its geological structure and productions, its astronomy, the laws of natural philosophy and those which govern the health and mental development of mankind,—as to have mastered the more advanced problems in Arithmetic, or to have fastened into the memory the abstrusities and often fanciful *minutiæ* of the higher divisions of our constantly changing text-books in Grammar. The great Book, speaking of the wisdom of Solomon, sums up the subjects of his learning which attracted the attention of “all the kings of the earth,” as follows:—

“He spake of trees, from the cedar tree that is in Lebanon even unto the hyssop that springeth out of the wall; he spake also of beasts, and of fowl, and of creeping things and of fishes.”

In the subordination of all other branches to Arithmetic and Grammar, seen in some of our schools of this

grade, are not we forgetting, not merely some of the most useful and improving topics of information, but some of the sublimest sources of wisdom? May it not, then, be hoped that by increasing the requirements for promotion, a higher class of scholars will hereafter be retained in the Grammar Schools and a wider range of studies be there pursued; while by annually introducing a more mature class into the lowest division of the High School, that institution shall also be greatly expanded and elevated?

This subject can hardly be better left than with a reference to the forcible quotation given in the Superintendent's report, from that eminent educator, George B. Emerson.

The city has forty-eight Primary Schools, an increase of two since last year. During the year these schools, when near together, have been graded, the younger half of two schools being put in one and the older half in the other. In some cases, three schools have been formed into a series, giving each two classes in place of the six it had before. The result has been gratifying, and is referred to by the Committee with much satisfaction. Our Primary Schools are mostly in excellent condition, except that many of them are becoming too crowded. The teachers are faithful and pains-taking, most of them manifesting a desire to adopt improved methods of teaching. Object-teaching has been introduced by some, and visits have been made by some to the best Primary Schools of Boston, to gather new ideas. Our Primary teachers, as a body, are the most

progressive in the city, and are second to none in merit and success.

A great mistake made by public opinion, unfavorably affects some of this class of teachers. It is thought that a poorer teacher will answer for a Primary School than for any other. Consequently, some teachers regard their service in these schools as a sort of apprenticeship, and feel that after a fair degree of success there, they may rightfully expect to be transferred to an assistantship in a Grammar School by way of "promotion." This is a grave error. It is vastly easier to find a good teacher for the Grammar School than for the Primary. She who receives the little beginners and beguiles them into the simplest of learning's ways; who helps their feet over the petty obstacles which another teacher of greater attainments might never see; who shares their little sorrows and appreciates their tiny pleasures and ambitions; who teaches them to think, to form habits of order, to acquire self-discipline, and, withal, to love to learn and long to know more, does a work of which the good effect shall be felt by those scholars in all future life. The Grammar and High Schools, and even the University, labor at a disadvantage with a student whose Primary education was perverted or neglected. With a thorough Primary training, poor teaching in the grades above, is of far less injury. Kirk Boott used to say that in the mills he built in Lowell, he expended more money below the surface of the ground than above it. Without this labor, buried from sight, how many Pemberton Mill disasters might we have had here! So does the good

Primary teacher labor—unappreciated and unnoticed by most of the community, and rarely thought of when the scholar graduates from High School or College with honor, but as truly entitled to a share of the credit as was the faithful builder who laid deep the foundation, with perhaps greater care than the architect bestowed on the pilaster and cornice which alone catch the eye of the world and win its admiration.

Our city has avoided the blunder made in some older communities where the Primary teacher receives less salary than the subordinate teachers of other grades. Let the public learn to give our Primary Schools their true value and assign their instructors to the front rank of the educational army, and these teachers and their friends will outgrow the sickly idea, that the successful principal of such a school could be “promoted”, if put in a subordinate position in any other school in the land.

In closing their report, the Committee with profound regret announce the withdrawal from office and the contemplated removal from the city, of Abner J. Phipps, Esq., for three years the Superintendent of Public Schools and the Secretary of the Committee. They feel that the educational department of the city has met with a great loss. The scholarship and culture of Mr. Phipps have been invaluable to our schools, while his uniform courtesy and geniality, his scrupulous faithfulness, fairness and impartiality, his untiring industry, his zeal in educational matters and his intelligent interest in the city at large and its general welfare, have earned alike our confidence, our gratitude and our esteem. Our

warmest wishes will follow him to the new pursuit in which he has been induced to engage, and we, in common with thousands of our citizens, shall ever be gratified to hear of his happiness and prosperity.

ORGANIZATION

OF THE

SCHOOL COMMITTEE,

1866.

JOSIAH G. PEABODY, Chairman.
 SAMUEL W. STICKNEY, Vice Chairman.
 ABNER J. PHIPPS, Secretary.

MEMBERS OF SCHOOL COMMITTEE.

JOSIAH G. PEABODY, Mayor,.....	}	<i>Ex-Officiis.</i>
GUSTAVUS A. GERRY, President of Common Council,....		
Ward 1—J. ORAMEL PECK,.....	Term expires	1866
J. W. B. SHAW,.....	“	“ 1867
“ 2—S. W. STICKNEY,.....	“	“ 1866
DANIEL P. GAGE,.....	“	“ 1867
“ 3—JOHN F. FRYE,.....	“	“ 1866
JOSHUA MERRILL,.....	“	“ 1867
“ 4—CHARLES KIMBALL,.....	“	“ 1866
JOHN DAVIS,.....	“	“ 1867
“ 5—GEORGE F. WARREN,.....	“	“ 1866
GEORGE N. WEBBER,.....	“	“ 1867
“ 6—JOHN A. GOODWIN,.....	“	“ 1866
LUTHER E. SHEPARD,.....	“	“ 1867

STANDING COMMITTEES.

ON ACCOUNTS,.... Messrs. Peabody, Gerry, Stickney, Frye and Shaw.
 ON SCHOOL HOUSES, Messrs. Peabody, Gerry, Davis, Merrill and Gage.
 ON TEACHERS,... Messrs. Warren, Goodwin, Frye, Webber and Shepard.
 ON REPORTS..... Messrs. Goodwin, Peck, Gage, Webber and Shepard.
 ON BOOKS,.. Messrs. Kimball, Stickney, Warren, Frye, Davis and Shaw.
 ON MUSIC,..... Messrs. Peck, Warren, Webber and Goodwin.
 ON SALARIES,..... Messrs. Stickney, Gage, Merrill and Frye.

ABNER J. PHIPPS, Superintendent of Public Schools.
 Office in City Government Rooms.

ORGANIZATION

OF THE

SCHOOL COMMITTEE,

1867.

GEORGE F. RICHARDSON, Chairman.
 SAMUEL W. STICKNEY, Vice Chairman.
 CHARLES MORRILL, Secretary.

MEMBERS OF SCHOOL COMMITTEE.

GEORGE F. RICHARDSON, Mayor,.....		} <i>Ex-Officiis.</i>
GUSTAVUS A. GERRY, President of Common Council,...		
Ward 1—	J. W. B. SHAW,.....	Term expires 1867
	JAMES B. FRANCIS,.....	“ “ 1868
“ 2—	DANIEL P. GAGE,.....	“ “ 1867
	S. W. STICKNEY,.....	“ “ 1868
“ 3—	JOSHUA MERRILL,.....	“ “ 1867
	JOHN F. FRYE,.....	“ “ 1868
“ 4—	JOHN DAVIS,.....	“ “ 1867
	JOHN H. BUTTRICK,.....	“ “ 1868
“ 5—	GEORGE H. WHITMORE,.....	“ “ 1867
	RUFUS ROGERS,.....	“ “ 1868
“ 6—	LUTHER E. SHEPARD,.....	“ “ 1867
	JOHN A. GOODWIN,....	“ “ 1868

STANDING COMMITTEES.

ON ACCOUNTS, Messrs. Richardson, Gerry, Stickney, Francis and Shaw.
 ON SCHOOL HOUSES, Messrs. Francis, Gerry, Merrill, Davis and Gage.
 ON TEACHERS,.....Messrs. Frye, Goodwin, Shepard, Davis and Gage.
 ON REPORTS, Messrs. Goodwin, Shepard, Buttrick, Rogers and Whitmore.
 ON BOOKS,.....Messrs. Richardson, Stickney, Frye, Davis, Shaw and
 Goodwin.

ON MUSIC,.....Messrs. Stickney, Gerry, Merrill, Davis and Rogers.
 ON SALARIES,..Messrs. Merrill, Stickney, Shaw, Whitmore and Francis.

CHARLES MORRILL, Superintendent of Public Schools,
 Office in City Government Rooms.



THIRD ANNUAL REPORT

OF THE

Superintendent of Public Schools,

FOR

1866.

SUPERINTENDENT'S REPORT.

To the School Committee of the City of Lowell :—

GENTLEMEN :

In conformity with the requirement of your Regulations, I beg leave to present my third Annual Report.

I shall not enter upon a discussion of the numerous topics more or less directly connected with the general subject of education, however tempting the theme to one interested in them, but shall aim to present a plain, practical Report, touching only upon subjects having a direct relation to the schools of our own city, 'accompanied by such statistical tables, and such suggestions in regard to the efficiency and usefulness of these schools as I deem advisable.'

I submit the following

SUMMARY OF STATISTICS.

The number of public schools in our city is.....	57
One High, eight Grammar, and forty-eight Primaries.	
Increase for the year, two Primaries.	
The number of teachers employed in them is.....	98
Increase for the year,.....	4

In the High School, four male and three female teachers.

In the Grammar Schools, seven male and thirty-four female teachers.

In the Primary Schools, forty-eight female teachers.

In the High and Grammar Schools, one teacher of penmanship, and one teacher of vocal music.

The amount paid for tuition during the year has been... \$51,389.70

Increase for the year,..... 9,249.53

For the High School,.....\$7,621.50

Increase for the year,..... 1,774.92

For the Grammar Schools,.....24,275.44

Increase for the year,... .. 4,017.73

For the Primaries,.....17,646.14

Increase for the year,..... 2,326.92

For the teacher of penmanship,..... 1,500.00

For the teacher of vocal music, from September 13th to December,..... 328.12

The *average number belonging* to all the schools has been 4948

Increase for the year,..... 396

High, 221; Grammar, 1862; Primaries, 2865.

The *average number attending* has been..... 4395

Increase for the year,..... 378

High, 206; Grammar, 1681; Primaries, 2508.

The average per centage of attendance in all the schools has been..... .90

High, .93; Grammar, .90; Primaries, .87.

The number of children in the city between five and fifteen years of age, May 1st, 1866, was..... 5978

Increase for the year,..... 853

In Ward One, 731; Two, 802; Three, 1376; Four, 1016; Five, 1305; Six, 748.

Aggregate of expenditures, including salaries, fuel, care of fires and school rooms, books and stationery,.... \$66,398.31

Increase for the year,..... 12,136.72

Expenditures chargeable to "Appropriation for School Houses,"..... 5,495.04

Decrease for the year,..... 809.98

Interest at 6 per cent. on the estimated value of all the school buildings (\$180,000),..... 10,800.00

The whole cost of supporting our public schools,..... 82,693.35

Increase for the year,..... 11,336.74

Average cost of each scholar in all the schools <i>for tuition only</i> , calculated on the <i>average number belonging</i> ,	\$10.38
Increase for the year,.....	1.12
In the High School, \$36.14; Grammar, \$13.81; Primaries, \$6.15.	
The salaries of the teachers of Penmanship and Vocal Music are divided between the High and Grammar Schools—1-5 to High, 4-5 to Grammar.	
Average cost of each scholar in all our public Schools, including the whole expense as above,.....	16.71
Increase for the year,.....	1.04
Balance remaining to the credit of Schools, January 1, 1866,	\$141.46
Appropriation by the City Government, not including for "School Houses,".....	\$60,000.00
Increase for the year,.....	\$10,000.00
Received from State fund,.....	843.75
Decrease for the year,.....	\$368.78
Received for tuition of non-residents,.....	550.31
Received for sale of "Music Books,".....	526.25
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Whole amount credited to Schools,.....	\$62,061.77
Aggregate of expenditures, not including those for School Houses,.....	66,398.31
<hr/>	
Overdrawn,.....	4,336.54
Transferred to account of Schools,.....	20,000.00
<hr/>	
Balance remaining to credit of Schools, Jan. 1st, 1867,...	\$15,663.46

COMPARATIVE RANK OF LOWELL.

The Abstract of the School Returns made from the three hundred and thirty-four towns and cities in the Commonwealth for the school year 1864-5, published in the last Annual Report of the State Board of Education, shows that in respect to the sum appropriated for the education of each child between the ages of five and fifteen years, the rank of Lowell was fourteen, precisely

the same as for 1863-4. The sum thus appropriated by our city was ten dollars, fourteen cents, and four mills. In this respect the only cities that excelled us were Boston and New Bedford. In the percentage of taxable property appropriated to the support of public schools our rank in 1863-4 was eighty-one, while in 1864-5 it was seventy-four. This percentage on our valuation of nearly \$21,000,000 was $2\frac{3}{8}$ mills. The only cities that appropriated a larger percentage were Chelsea, Lynn and Charlestown. Boston, with its costly palatial school buildings, and very great appropriations for salaries and other school purposes, ranked as low as three hundred and sixteen, and appropriated only $1\frac{1}{8}$ mills, (which is less than one-half of what our city appropriated,) on its valuation of over \$378,000,000. In respect to the Average Attendance of children upon the public schools, our rank in 1863-4 was one hundred and thirty-one, and in 1864-5 was one hundred and fourteen. Chelsea was the only city that surpassed us in this respect, its rank being seventy-eight.

Such a comparison is a very creditable one to our city. It is indicative of progress in the right direction, and it is to be hoped that the statistics for 1865-6 will give us a still better comparative rank in each of the above mentioned particulars.

1826 AND 1866 CONTRASTED.

The present year is the last in the fourth decade of the municipal existence of Lowell. The history of its schools for these forty years will form one of the most interesting and important chapters in the annals of its future historian. I shall very briefly touch upon one or two points of contrast between "then and now." Ap-

pended to the First Annual Report for 1826, are the names of two of our citizens, whose daily presence among us still is a constant reminder of their long-continued and faithful services in the cause of popular education. I need not say that I refer to Rev. Dr. Edson and Dr. Green, for whom two of our Grammar Schools are named. In that Report they give it as "their opinion that good schools cannot be supported for a sufficient length of time in the several districts with a less sum than was raised the last year (1826), viz: one thousand dollars." The amount expended for the support of our schools for 1866, for all purposes, was \$71,893.35, and a larger amount will be required for the coming year.

There was then a population of two thousand three hundred; it now, probably, falls but little short of forty thousand. Then there were six small, district schools, kept for the most part only a few months in the year, and taught by six teachers, to meet the wants of three hundred and fifty school children; now we have a High School, eight Grammar, and forty-eight Primary Schools, kept through the whole year, and taught by ninety-eight teachers, to meet the wants of six thousand children between the ages of five and fifteen years, as reported by the Assessors, and about three hundred others, over fifteen years of age, attending our schools. Six years later than this, in 1832, the Committee on School Houses in a Report to the town stated that the town, with a population exceeding ten thousand "does not yet own a school house." The estimated value of all the school buildings now owned by the city is nearly two hundred thousand dollars.

These facts, and others like them which might be cited, show that while the growth of this city, and its prosperity in industrial and mechanical pursuits, have been sur-

passed only by a few cities in remote parts of the Union, the citizens can with equal pride point to abundant proofs of the enlightened and generous regard for public education which has marked its history during the brief period embraced in this contrast.

CENSUS OF SCHOOL CHILDREN.

Agreeably to the provisions of the Statute, the Assessors annually in the month of May, ascertain the number of children between the ages of five and fifteen years, and report the same to the School Committee.

The following table will show the number of such children in our city, as taken in May, 1866, compared with that of a few preceding years:

	1866	1865	1864	1863	1862	1861	1860
Ward 1,	731	668	532				
Ward 2,	802	681	654				
Ward 3,	1376	1033	1096				
Ward 4,	1016	1010	1017				
Ward 5,	1305	1177	1062				
Ward 6,	748	556	568				
Total,	5978	5125	4929	5268	5372	5712	5686

It will appear by the above table that there was a decrease of 783 in the number of children between the above ages from 1861 to 1864, in which latter year it reached the minimum, and that in 1866 the number reported is an increase of 1049 above that in 1864. The local causes tending to such results in manufacturing cities, and especially during the period included in the above statement, are so well understood as to need no explanation.

It would be a gratifying fact, if the six thousand children in our city between the school ages of five and fifteen years were all enjoying the advantages of education, which with such a liberal expenditure, are so freely provided for them. But our school registers show that such is not the fact.

Very many, too, of those whose names are to be found upon these registers enjoy these advantages only for a small portion of the school year. The necessitous circumstances, or the cupidity of parents, will not allow their children to attend school any longer than the demand of the statute requires, and not even so long if by any means it can be evaded. And this leads me to speak of the

EMPLOYMENT OF CHILDREN IN MANUFACTURING ESTABLISHMENTS.

I regard this as one of the most important subjects to which the attention of those interested in the proper education of our youth can be directed. In my last Annual Report I stated that I had reason to believe that the wise and salutary provisions of the Statute for the instruction of every child in the Commonwealth under fifteen years of age were repeatedly violated by the Overseers, and other subordinate officials connected with several of the Corporations in our city, and that by thus illegally employing children to work in the mills, they not only did these children a great wrong in defrauding them of an education, but also rendered their employers liable to the prescribed legal penalties.

The importance of this subject, and the continued frequent violation of the law relating to it, will justify me in quoting the first two sections from Chapter 42 of

the General Statutes, that the requirements of the law may be made known to some through this Report, who may not have access to the "General Statutes."

"SECTION 1. Children of the age of twelve years and under the age of fifteen years, who have resided in this State for the term of six months, shall not be employed in a manufacturing establishment unless within twelve months next preceding the term of such employment they have attended some public or private day school, under teachers approved by the School Committee of the place in which said school was kept, at least one term of eleven weeks, and unless they shall attend such a school for a like period during each twelve months of such employment. Children under twelve years of age, having resided in this State for a like period, shall not be so employed unless they have attended a like School for the term of eighteen weeks, within twelve months next preceding their employment, and a like term during each twelve months of such employment.

"SECTION 2. The owner, agent, or superintendent, of a manufacturing establishment, who employs a child in violation of the provisions of the preceding section, shall forfeit a sum not exceeding fifty dollars for each offence, to be recovered by indictment, to the use of the public schools in the city or town where such establishment is situated; and the school committee in the several cities and towns shall prosecute for all such forfeitures."

Our State Legislature at its last session, without repealing the preceding, passed the following Act relating to the same subject, which contains some important and essential modifications of a more stringent character to which the attention of all parties interested is particularly invited. I quote from Chapter 273 of the General Laws, passed during the session of 1866.

"SECTION 1. No child under the age of ten years shall be employed in any manufacturing establishment within this Commonwealth, and no child between the age of ten and fourteen years shall be so employed, unless he has attended some public or private day school

under teachers approved by the school committee of the place in which such school is kept, at least six months during the year next preceding such employment; nor shall such employment continue unless such child shall attend school at least six months in each and every year.

“SECTION 2. The owner, agent, or superintendent of any manufacturing establishment, who knowingly employs a child in violation of the preceding section shall forfeit a sum not exceeding fifty dollars for each offence.

“SECTION 3. No child under the age of fourteen years shall be employed in any manufacturing establishment within this Commonwealth, more than eight hours in any one day.

“SECTION 4. Any parent or guardian who allows or consents to the employment of a child in violation of the first section of this act, shall forfeit a sum not exceeding fifty dollars for each offence.

“SECTION 5. The governor, with the advice and consent of the council, may, at his discretion, instruct the constable of the Commonwealth and his deputies, to enforce the provisions of chapter forty-two of the General Statutes, and all other laws regulating the employment of children in manufacturing establishments, and to prosecute all violations of the same.” [*Approved May 28, 1866.*]

It will be seen, from the above, that there is a penalty attached to the violation of Section 1, to which the owners, agents or superintendents of manufacturing establishments, and parents or guardians, render themselves liable.

As no penalty is prescribed for a disregard of Section 3, it is presumed that our cautious legislators merely wished to express a favorable opinion of the “eight-hour law” as applicable to children “under the age of fourteen years,” leaving it optional, however, for parties interested to heed or disregard its beneficent provision, even in the case of such.

I would respectfully and earnestly recommend that this Board initiate such measures as shall lead our most worthy Chief Magistrate, who as Chairman of the State Board of Education is presumed to feel an interest in this subject, in accordance with the provision of Section 5, "to instruct the constable of the Commonwealth and his deputies to enforce the provisions of all the above laws regulating the employment of children in manufacturing establishments, and to prosecute all violations of the same." And I would suggest that if the State Constabulary should be so engrossed with the duty of enforcing the observance of some other laws, so constantly violated in our city, as to leave them no time for this service, that several of our teachers can furnish them with all needed information on the subject as the basis for any legal action they may be disposed to institute.

TRUANCY AND ABSENTEEISM.

The disastrous effects upon our schools, as well as upon individuals, resulting from these prolific evils, have been so often presented, and are so well understood, that it would be a mere waste of words to dwell upon them now.

To obtain such statistical information in relation to each school as I have deemed important, early in the year I had blanks printed embracing fifteen separate items, to be filled out and returned to me at the close of each term. From the High and Grammar School Reports for the terms ending in July and November, the former embracing a period of ten weeks, and the latter of twelve, I submit, without any comment on the facts so suggestive, the following summary of information relating to the subject now under consideration :

TABULAR STATEMENT OF ABSENCE, TARDINESS, ETC.

	HIGH.		BARTLETT.		COLBURN.		EDSON.		FRANKLIN.		GREEN.		MANN.		MOODY.		VARNUM.	
	July	Nov.	July	Nov.	July	Nov.	July	Nov.	July	Nov.	July	Nov.	July	Nov.	July	Nov.	July	Nov.
Average No. belonging.....	188	257	306	353	124	142	337	378	158	171	196	214	121	146	289	297	166	184
No. of absences,.....	1388	1732	3194	2875	1494	2168	4152	4216	1600	1363	1939	2108	1218	1505	2879	2614	1469	1512
No. of instances of tardiness,	299	460	937	684	414	464	80	178	146	141	430	477	382	450	614	682	230	344
No. of $\frac{1}{2}$ days of truancy,...	12	8	7	28	8	51	97	155	20	3	?	10	43	30	3	14	7	28
No. of $\frac{1}{2}$ days without absence or tardiness,.....	0	0	2	33	0	0	6	13	0	29	0	11	0	1	0	16	4	9

The School established by our City Government for the reformation, safe keeping and proper instruction of juvenile truants, is not embraced within the supervision of this Board, neither is the Truant Commissioner in any way accountable to it. Though these form an important part of our school machinery, the School Board has no control over them. To secure the greatest efficiency, and the best practical results, from efforts to remedy this great evil, the powers of the Board, in my opinion, should be so extended as to have under its immediate supervision this whole subject. It might have a tendency to reduce the number of cases of truancy, if, instead of sentencing every habitual truant to the school above referred to, the "fine not exceeding twenty dollars for each offence against the Ordinance relating to truant children and absentees from school" were imposed, and the parents of such children, when practicable, were made to pay it. To avoid the infliction of such a penalty, most parents would be likely to resort to measures that would secure the more constant attendance of their truant children at school. Mr. Jesse Huse has been the only Truant Commissioner employed during the year, and has, I have no doubt, rendered as efficient service in discharging the duties of his office as could reasonably be expected of one man. Still, the frequency with which children during school hours may be seen stealthily dodging around street corners, and attempting in other ways to avoid coming in contact with any school officer, and the large number of half days of truancy, as shown by the above table, and still more by similar reports from the Primary Schools, show that very much more remains to be done. Let me here suggest, for the consideration of the City Government, the expediency of appointing the Superintendent, and all the male Principals of our schools, spec-

ial Truant Commissioners, with authority to exercise, as far as may be practicable, the power now vested in the Chief Commissioner, and to co-operate with him in the discharge of his highly important duties. To show the practical operation of our truant law, I submit the following facts which I have gathered from the record kept by Mr. Huse, embracing the period from January 1st to October 31st, since which time, in consequence of his severe sickness, nothing has been done to enforce the law. The month of August is not included in the Report.

Whole number of new cases investigated,.....	425
“ “ “ truants,.....	250
“ “ “ absentees,.....	111
“ “ “ new scholars,.....	39
“ “ “ misdemeanors,.....	71
“ “ returned second time,.....	180
“ “ “ third time,.....	82
“ “ arrested,.....	40
“ “ sentenced to school of reformation, &c....	32

EXAMINATION OF TEACHERS.

The School Regulations require that “the Committee on Teachers shall examine annually, and from time to time, all applicants for schools, and all teachers temporarily employed in the schools of the city, and recommend to the Board suitable persons to receive certificates.”

The usual annual examination of such applicants was held February 19th, when forty-one young ladies were examined, principally by printed questions. Twenty was the maximum for entire correctness in each of the eight branches on which they were examined, making an aggregate of one hundred and sixty. Certificates of approval were granted by the Board to nineteen of the above number, whose rank varied from one hundred and fifty-three

to one hundred and seventeen. Their names are given below. They are all graduates of our High School, and ten of them are either graduates of the Salem State Normal School, or have for a longer or shorter period been connected with it. Those who have been elected teachers are designated by an asterisk.

- | | |
|--------------------------|---------------------------|
| 1. *Helen M. Hunt, | 11. Nettie E. Carleton, |
| 2. Elizabeth McDaniels, | 12. Anna E. Davis, |
| 3. Sarah E. French, | 13. *Clara E. Bailey, |
| 4. Sarah J. Crosby, | 14. *Helen C. Frye, |
| 5. Alice J. Hardman, | 15. Emma L. Pevey, |
| 6. *Sarah A. Hadley, | 16. Isabella V. McAnulty, |
| 7. *Addie L. Sargent, | 17. *Sarah C. Fiske, |
| 8. *Harriet A. Hadley, | 18. Mary F. Kittredge, |
| 9. *Sarah E. Scales, | 19. *Martha A. Franklin. |
| 10. Sarah F. Dillingham, | |

Besides the above, a certificate has been given to *Carrie M. Garland, to whom, by vote of the Board, a special examination was granted in November.

A very unusual interpretation, and, so far as my knowledge extends, unprecedented in its application in our State, has been given, during the year, by this Board, to the requirement of the Statute and our own School Regulations, based upon it, relative to the examination of teachers. The opinion has been advanced, that as our teachers are elected for the school year only, which terminates with the close of the summer term, they are then "applicants for schools," and therefore, however long and successful a connection they may have had with our schools, they must all undergo the examination, required by the Statute, of novices, and of all new applicants, before they can be eligible to re-election; at least, before they can receive "payment on account of services" rendered as teachers.

The recommendation of the Committee on Teachers, "that the present teachers in the public schools be examined as to qualifications preparatory to receiving the certificates required by law," was referred to the City Solicitor, who expressed the opinion, "that under the provisions of the Statute, and the regulations of the School Committee, *all teachers must be examined annually*, and must file their certificates with the Mayor and Aldermen annually in order to authorize any payment to them for their services." If this be so, then several hundred thousand dollars have been paid from our City Treasury illegally; for a formal examination of all the teachers employed has not been made in this city, the Committee being satisfied, and, in my opinion, very reasonably so, with their examination of teachers, informally made at every visitation of their schools, and with the results exhibited at the semi-annual examinations of the latter, and seem to have regarded the re-election of a teacher as virtually renewing the original certificate of qualification given after the examination to which all new applicants are subjected.

Acting, however, upon this opinion of the City Solicitor, the Board passed a vote "that the sub-committees of the several schools be directed to examine the teachers of their schools in such manner as they find to be required by law, and report the result." The reports subsequently made showed that the sub-committees did not adopt any formal examination, but were satisfied that the "requirement of the law" was fully met by the method of examination pursued here, and in all the cities in our State, in the case of teachers after their first formal and approved examination. I have thus, at some length, dwelt upon this subject, as it forms a part of our school history for the year, to which reference may hereafter be made.

In the first examination, and election of a teacher, there cannot, I think, be too rigid a scrutiny in regard to all the qualifications so essential to success in the teacher's vocation. Mere personal preferences, from whatever cause arising, sympathy with the circumstances of the applicant, or any other motive inconsistent with a regard to the highest interests, present and prospective, of our schools, should be utterly ignored, in the election of a teacher; for when this relation is once established, a disturbance of it, however much reason there may be to justify the act, is frequently attended with difficulties and embarrassments, fully appreciated only by those who have experienced them.

SCHOOL HOUSES.

The appropriation for "School Houses" annually made by the City Government, independent of that made for "Schools," is expended by the Superintendent of Public Buildings under the direction of the Joint Standing Committee on Lands and Buildings. Though the School Board have no control over this appropriation, their Committee on Accounts supervise the bills incurred in its expenditure, and thus have a general knowledge of the purposes for which it is used. It gives me pleasure to say that my suggestions, frequently made, in regard to needed repairs, and other matters pertaining to the jurisdiction of the Superintendent of Public Buildings, have uniformly been adopted by him, and promptly carried out. Though much still remains to be done to some of the buildings and their surroundings, which a good householder would do for his own private property, even on the score of economy, still much more has been done during the year than has been

usual heretofore, and the expenditures for these purposes seem to me to have been judiciously made. As I have given much attention to this subject I will submit a brief summary of what has been done. In most of the Grammar School buildings, all of which are now heated by steam, there was such a deficiency of steam pipes that very frequently during the coldest days of last winter, it was impossible to keep the rooms sufficiently warm, and hundreds of children had to be sent to their homes. To remedy this evil an additional line of steam pipes has been placed in each room. Outside windows have been fitted to all the Grammar Schools where they were needed,—possibly in some cases where, with the additional steam pipe, they were not really necessary. The windows of all the school houses, many of which were in a bad condition, have been cared for. Nearly three thousand feet of new fences have been built, and the old fences have been repaired. The stone wall on the East side of the Bartlett School premises, which had partially fallen over into the garden below, has been rebuilt, and the wall on the South side put in better condition. Four new out-buildings have been built, and the old ones repaired. In the Spring vacation the walls of all the school rooms were whitewashed, which should be done every year not only to improve their appearance but for the sanitary benefit resulting from it. Six of the buildings have been painted, and there are others that should be. The roofs of two Primary School buildings have been slated, one on Fayette, and the other on Chapel Street. New school furniture has been made, or is nearly completed, for three rooms, which have been reopened during the year to meet the increased number of scholars in the Primary Schools; and when this is put in its place, every one of our Grammar and Primary

Schools will be supplied with single desks, chairs, and other school furniture, generally of modern style, all manufactured in our own city by its regular employes. Many of the blackboards, greatly needing it, have been coated with the "Eureka Liquid Slating," which, at very much less cost, renders them nearly equal to the best slabs of slate, and they are all now in very good condition. The expenditure for all these purposes has been \$5,495.04.

EMPLOYMENT OF SPECIAL TEACHERS.

From the last Report of the State Board of Education it appears that in many of the cities of Massachusetts private schools are very flourishing, and a large amount is yearly expended for the education there sought. Salem is reported as having, in 1864-5, thirty-six private schools, in the support of which was expended \$18,237; Cambridge twenty-two, at an expense of \$20,735; Springfield twenty, at \$8000, and New Bedford sixteen, at about \$6000. The number of such schools in Lowell, for the same period, is reported as eight, and the amount expended upon them \$3,500. There are few cities in New England where the number of first class private schools is so small as with us, and the only way to perpetuate this characteristic of our city is to make such provision in the public schools as will meet, within reasonable limitations, all the educational wants of our children. If we would have our citizens continue to send their children to the public schools, as they now do with so few exceptions, then these schools must afford all the advantages which the best private schools offer to those who patronize them. Hence the wisdom of employing teachers of special branches, whenever necessary, to meet the wants

of pupils in our higher grades of schools. Our legislators, appreciating the importance of this subject, to remove the obstacles which in certain cities were interposed by aristocratic parties who had little sympathy for free, public education, in 1859 legalized the employment of teachers of certain specified branches not before recognized in the legal requirement, such as vocal music, drawing, etc., by authorizing school committees to act according to their discretion in the matter. I need not say that the employment of such special teachers, when the regular teachers are unable to give the needed instruction, tends to increase the aggregate of expenditure for the support of schools, but I believe that the sum thus expended is a good investment, and that its results, present and future, are not to be estimated by the slight addition thereby made to the taxes of our citizens. In respect to this and other school expenditures, it is more frequently the case that those who pay merely a poll tax, or have it paid by others, complain much more than those who pay the largest taxes. The salaries of the three special teachers of Vocal Music, Drawing, and Penmanship, whose instructions are confined to the High and Grammar Schools,—that of the teacher of Drawing, exclusively to the High,—amount to \$3,400 for a year. This divided by 2083,—the average number belonging to these schools, and who have received the benefit of instruction in these branches, makes the cost for each pupil at the rate of \$1.63 for a school year of forty-four weeks, or *less than* FOUR CENTS *for each week*. Could similar instruction be obtained at a first class private school, if parents had to resort to one for it, at so small an expense?

VOCAL MUSIC.

In July last a committee was appointed by the Board to consider the expediency of introducing Vocal Music into the schools, as a branch of systematic instruction.

The report of this committee, recommending the employment of a competent teacher of Vocal Music in the High and Grammar Schools, was unanimously adopted.

Mr. George F. Willey, so well known in this community as an accomplished and highly successful teacher of this specialty, was selected for this purpose, and his salary was fixed at \$1500, the same as is paid to each male teacher employed in the High and Grammar Schools, with the exception of the High School Principal. He entered upon his duties September 13th, and has since then been very zealously and successfully discharging the duties prescribed for him, devoting to them the entire time of each school session. Such a division of the schools is made, that each pupil has the benefit of his instruction twice each week. Having been present at many of these exercises to observe the character of the instruction, the manner of imparting it, and the general results, I can unhesitatingly speak of them with the highest commendation. Himself enthusiastic, he infuses a similar spirit into all his classes, and in this respect, as well as in some others, his influence is felt for good in all the schools. Forty minutes are given to each lesson, and two-thirds of this time is occupied in teaching the pupils to sing by note in strict time. The tones of the scale are practiced first by the whole class, then by divisions. Then follow singing exercises from large charts suspended in view of all the pupils. These are sung without any assistance from the teacher, first with the numerals, then with the letters and syllables. No

exercise is protracted so long as to be wearisome, but variety and entertainment are so blended with the instruction, that the pupils are kept constantly, yet happily, occupied. The lesson closes with the singing of some cheerful songs from their music books, about fifteen hundred of which have been purchased at "introduction prices," and mostly paid for by the pupils using them. The utmost decorum and good order prevail at every exercise. Though a participation in these singing exercises is voluntary on the part of the pupils, there are very few who do not take an active interest in them. By an actual count made in once going the round of all the schools, out of nineteen hundred and thirty-six pupils present, only twelve were found not participating in the exercise, and some of these were hard of hearing, or near sighted. There is a practical difficulty connected with bringing together so many pupils into one room for this exercise, as is necessary in nearly all the Grammar Schools. Owing to the insufficiency of seats, boards have to be placed across from chair to chair in the aisles, and still many must stand through the exercise. The atmosphere of the room soon becomes vitiated. These and some minor evils can be remedied only by having a large hall for such, and other numerous, general exercises, and every one of our Grammar Schools should have such a greatly needed accommodation provided for it. I would earnestly invite attention to this suggestion.

I have dwelt at such length on this subject of Vocal Music, because during the short time since its introduction into the schools so few of our citizens have had the opportunity of witnessing results so gratifying to those who have observed them. To give the citizens generally such an opportunity, I would recommend that there be a public exhibition of the proficiency made in this branch

of study, in Huntington Hall, either at the Spring or Summer Semi-Annual Examination of these schools. A portion only of the members of each school could be selected for such an exhibition.

I should feel hardly justified in leaving this subject, without giving public expression to my appreciation of what was done in one of our Grammar Schools to promote the culture of vocal music, prior to any action by the Board. Indeed, the success attending the movement there, was the immediate cause that initiated and consummated this action. I refer to the Mann School, composed exclusively of Irish children. To awaken an interest in singing, it was deemed very desirable by the Principal that his school should have a proper musical instrument. As the nucleus for the purchase of such an instrument, two of his pupils,—to their honor be it said,—deposited in the Mechanics' Savings Bank the sum of two dollars which they had received from him as a reward for constant attendance for one year. To bring the subject before the friends of the school, an Exhibition was given in February, 1865, in the school house, which awakened so much interest that small sums began to come in from many sources, especially from the Mann School boys in the army. During the winter of 1865-6, two Exhibitions were given in Mechanics Hall which, with previous accumulation, afforded funds sufficient to purchase a Cabinet Organ, costing \$170, and one hundred song books. This Organ was presented in June last to the School Board, for the use of the Mann School. For an entire school year ending in July last, Mr. Willey gratuitously gave two music lessons each week to this school. His instruction, says the Principal, "has not only proved an excellent training for the voice, but has given new attractions to the school room, exerting a

purifying and ennobling influence on the minds of the pupils while in school, and adding much, I doubt not, to the social enjoyments of their homes."

I have deemed it but an act of justice to the parties concerned to speak of these facts, in this connection, as a knowledge of the beneficial results attending these efforts in this school prompted the movement which has resulted in re-introducing instruction in vocal music in all the higher schools.

DRAWING.

The importance of a good knowledge of Drawing, whether regarded as a very useful accomplishment, or as a preparation for remunerative employment for both sexes, in its numerous applications to practical purposes, is so well understood as to render unnecessary any argument upon the subject.

Early in the year the Board decided to employ a special teacher of Drawing for the High School, at an expense not exceeding \$400 for the year. Miss A. L. Brigham was selected for this position, and has very satisfactorily discharged the duties prescribed for her. It is an optional study, no one being required to attend to it. For the first six months the number of pupils who received instruction in Drawing was eighty. The instruction at first was restricted to elementary drawing,—chiefly copying,—and this was succeeded by exercises of a more independent character, consisting principally of Perspective Drawing, making a greater demand upon the judgment and taste of the pupil. A few who were attracted to the study at first by its novelty, and from no real interest in it, have been allowed to drop it. Of

late the number pursuing it has been sixty-five, whose progress has been satisfactory in every respect.

PENMANSHIP.

The School Regulations say that "there may be a Teacher of Penmanship, who shall give instruction in Book-keeping and Penmanship in the High and Grammar Schools, and whose duty shall from time to time be defined by the Board." If all teachers were capable of giving the necessary instruction in this very important part of a child's education,—and they would be if such a qualification were made indispensable to their election,—then there would be no more necessity for the employment of a special teacher of Penmanship than of Arithmetic, or Grammar, or any other subject required by the Statute to be taught in public schools. The beautifully executed copies on every page of all the different numbers in the series of Writing Books, for the imitation of pupils, with the accompanying printed instructions, supplemented by the oral, personal criticisms of the regular teacher, ought to be sufficient to meet the wants of every public school in respect to this branch of study, and a failure on the part of such teacher to secure good results in penmanship should be regarded in the same light as a failure in the discharge of any other school duty.

In the expression of such an opinion I do not intend the slightest disparagement to the very successful teacher, who, for nearly two years, has been specially employed to give instruction in Penmanship in the High and Grammar Schools of our city, and who seems so abundantly qualified for a higher and wider sphere of

educational labor. The Board have shown their appreciation of Mr. Harrison's services by making his salary the same as that of the Principals of the Grammar Schools. As the result of his weekly visit to each room in the High and Grammar Schools, with the scientific oral, and blackboard instruction then given by him, and the increased time and attention which the regular teachers have given to this exercise, following out, very successfully, his method, the children in all these schools have made very great and highly gratifying improvement in Penmanship. At the last examination for admission to the High School, the one hundred and fifty-six specimens of penmanship, written by as many Grammar School pupils under quite unfavorable circumstances, were, with few exceptions, in the highest degree creditable. One hundred and twenty-nine of this number received the maximum credit of ten allowed for this branch, and twenty-one others were marked nearly as high.

PRIMARY SCHOOLS.

Our Primary Schools now number forty-eight, which is an increase of two above the number reported last year. To relieve the over-crowded condition of the schools on Fayette Street, a portion of the children were transferred to an unoccupied room in the Moody School house, and as a similar relief to the schools on Elliott and Middlesex Streets, a new school has been opened quite recently, in the school house at the corner of those streets. Several of the Primary Schools have a much larger number of scholars than can be profitably instructed, and the efficiency and usefulness of their teachers are thus greatly impaired. From the quarterly reports made to

me by the several teachers at the close of the last quarter, (in November,) I find that in twenty-seven Primary Schools the *average number belonging* to each was sixty and upwards, in fourteen it was sixty-five and upwards, and in eleven it was more than seventy. Ten had an *average attendance* of over sixty-five, and five had over seventy. The reports made to me of the numbers actually in attendance at the close of the first week of the present quarter, show a similar state of things. Primary No. 22 reported eighty as present, and three others expected; No. 44 reported seventy-eight. These are in the Mann School building, and I would again recommend the opening of another school in the same building to meet the wants of the large number of children in that district. No. 35, in the Moody School building, reported seventy-seven as present, and sixteen others expected. No. 34, in the Franklin School building, reported seventy-eight, and seven expected. The two Primaries on Charles Street, Nos. 19 and 39, reported an aggregate of one hundred and forty. Some of the other schools are nearly as full as these. These facts show that, unless there is a very considerable decrease of the number of school children in certain localities, which in the generally prosperous condition of the business of our city can hardly be expected, increased accommodations must very soon be provided to meet their wants. I commend the subject to the early consideration of the in-coming Board.

In my last Annual Report I spoke of the *ungraded* character of our Primary Schools as, in my opinion, the greatest obstacle in the way of their more thorough and satisfactory improvement. We had then forty-six schools entirely independent of each other, in each of which were found children, formed into six classes, ranging through the studies of the first five or six years of their

education, from the Alphabet to a somewhat advanced portion of Mental Arithmetic and Geography, until they were prepared for the Grammar School. My recommendation in regard to a better classification of these schools was at once adopted by the Board, and permission was given to the several sub-committees to grade their schools agreeably to my suggestions. With a single exception, the sub-committees have all done so, as far as was practicable. All that can conveniently be thus graded have been, with the exception of the two in the Mann School building, and the two on Cross Street. Some of the Primaries are so isolated, or so constituted, as to render it inexpedient to effect this arrangement. In most of the changes thus made, where there were two schools in the same building, the three highest classes in both have been assigned to one teacher, and the three lowest to the other. In a few instances where there were three schools in the same building, or near each other, a better subdivision has been made of the six classes heretofore in each, by so uniting them as to give only two classes to each teacher. The benefits of such a classification are already very perceptible. The power of the teacher to impart instruction to the same number of children, to interest them in their studies, and to secure good order, by thus reducing the number of classes from six to three, is more than doubled. Under the old system there was a very strong temptation to give an undue proportion of time to the first class, as this was the one to be publicly exhibited at the semi-annual gathering of parents and friends, and to be sent to the Grammar School, and not unfrequently the lower classes were sadly neglected. Several of the teachers have assured me that under the present arrangement, their classes, especially the lower ones, have in one term

made as much progress as they formerly did in two terms, and my own observation confirms the statement. There were some, long accustomed to the old system, who at first reluctantly adopted the change, but I know of no teacher or sub-committee who does not now cordially approve of it. Much better results may be expected in the future, if the teachers shall learn and put in practice the methods of instruction which give such an enviable reputation to the Primary Schools of Boston, and as an essential aid to this their school rooms should be supplied with all the needed appliances which are so abundantly found in those schools, and in respect to which ours are so deficient. One of the immediate wants of all these schools, and the only one I will now specify, is a supply of "Primary School Slates", one for every child, and a suitable receptacle for it attached to each desk. The benefits to be derived from the daily use of these slates, under the instruction of a competent teacher, are so obvious as to require no argument upon the subject. Much of my time has been devoted to this grade of schools, and to efforts for their improvement, because I regard them as, in many respects, the most important in our system of education. Besides my usual visitation of the schools, I spent about four weeks near the close of the Winter term, and the same amount of time in the Summer term, in a thorough examination of the first class in each of these schools with reference to their preparation to enter the Grammar Schools. The whole number examined at these two periods was seven hundred and nine. The number to whom I gave certificates of approval was six hundred and twenty-four. The results were generally satisfactory, and showed a more uniform and better preparation than heretofore, and a smaller proportion than usual failed of receiving my certificate of approval.

GRAMMAR SCHOOLS.

Our Grammar Schools are generally in a very good condition, and continue to do a great and good work for the children of the city. They continue under the Principalship of the able and experienced teachers who have so long presided over them, and who are so well known to our citizens as to render unnecessary the mention of their names, or any description of their peculiar characteristics as teachers. The individualities of these teachers have been respected by their sub-committees and myself, and each one has been allowed to teach and govern according to his own convictions, by his own methods and in his own way. Suggestions in regard to methods of teaching and discipline have always been kindly received by them, and generally adopted. They all, together with their assistants, many of whom have sustained that relation for a series of years, have labored faithfully through the year, and the results have generally been quite satisfactory.

Though I am far from considering the results of an examination to enter the High School, and the comparative number admitted, as the only or best criterion by which to judge of the superior excellence of a teacher, or of his school,—for there are other things quite as important as these in moulding the character of our children and fitting them for future life, which cannot be presented in statistical tables,—still in accordance with my previous practice I submit the following table :

Results of the Examination of Applicants from the several Grammar Schools to enter the High School, July, 1866.

The percentage required for entire correctness in the several studies is indicated by the figures placed over each, making in the aggregate, 130.

SCHOOL.	Boys.		Y. M. Av'ge age of all examined.	20	20	10	20	20	20	20	130
	No. examined.	No. admitted.		Av. in Spelling.	Av. in Reading.	Av. in Writing.	Av. in History.	Av. in Geography.	Av. in Grammar.	Av. in Arithmetic.	General Average.
Bartlett, . . .	13	11	14-7	9.07	15.30	9.84	14.86	11.64	9.16	7.27	77.17
Colburn, . . .	1	1	12-9	5.00	19.00	9.00	18.80	12.00	13.00	11.40	88.20
Edson,	11	10	14-9	8.45	16.90	9.63	15.31	12.84	9.47	8.89	81.87
Franklin, . . .	9	8	14-6	6.93	17.11	9.83	14.14	12.68	11.12	9.73	81.57
Green, *	12	8	14-9	9.50	18.16	10.00	11.30	9.98	6.85	5.25	70.22
Mann,	3	2	14-8	13.66	16.33	9.83	12.83	9.43	8.40	5.06	75.76
Moody,	14	11	14-1	9.21	15.50	9.85	15.66	10.13	9.78	7.37	77.52
Varnum, . . .	14	11	15-6	7.93	16.92	9.53	15.37	13.85	9.43	8.61	81.48
	77	62	14-5	8.72	16.90	9.69	14.78	11.57	9.65	7.94	79.22
Girls.											
Bartlett, . . .	19	16	15-11	9.92	18.16	9.84	14.90	9.35	9.41	5.08	76.10
Colburn, . . .	9	6	14-9	10.66	18.55	9.89	13.54	9.93	10.49	3.89	76.89
Edson,	16	12	15-4	8.98	17.50	9.90	12.07	11.17	10.46	5.32	75.41
Franklin, . . .	8	6	15-1	10.87	16.25	9.87	12.71	11.57	11.47	8.52	81.29
Green,	9	8	15-2	11.05	19.11	10.00	11.39	9.93	11.05	7.35	79.90
Moody,	14	13	14-1	10.07	17.58	10.00	14.99	9.30	11.75	5.70	79.40
Varnum, . . .	4	3	14-9	8.50	17.75	10.00	13.47	10.50	11.72	4.75	76.70
	79	64	15-0	10.00	17.84	9.93	13.29	10.25	10.91	5.80	77.96
Gen'l av. of 156 examined,	156	126	14-8	9.36	17.37	9.81	14.03	10.91	10.28	6.87	78.59

* Three of this number were permitted to be examined, at the urgent request of their friends, though assured by the Principal they could not pass. Their results greatly reduce the average.

The standard for admission at this examination, as adopted by the Board, was as follows: All having an aggregate of 74; all, fourteen years and upwards, having 72; all, fifteen years and upwards, having 70; and all, sixteen years and upwards, having 68. In each instance, 22 more than the standard for 1865.

For the number of scholars belonging to each of the above schools during the year, see the Table at the end of the Reports.

The recommendation in my last Report, "that in future examinations for admission to the High School there be no such marked difference in the percentage of correctness required in the several subjects on which an examination is made, as has been the usage for several years, allowing twenty-five for Arithmetic, twenty for Grammar, fifteen for Geography, ten for History, and twelve for Spelling,—thus encouraging an undue degree of attention to some, and equal neglect of other studies,"—was adopted by the Board, and a rule was established "that each correct exercise in Reading, Spelling, Arithmetic, Grammar, Geography, and History, be ranked at twenty, and in Writing at ten." And further, that "in considering the value of each written exercise, regard shall be had to accuracy of language, neatness of writing, to spelling, capitalization and punctuation."

The questions prepared by me for this examination will be found in Appendix No. 2.

Having in my previous Reports made some strictures upon the studies prescribed for Grammar Schools, and suggested some modification or enlargement of these studies to meet the wants of the large proportion of the youth of our city who cannot, for various reasons, enjoy the advantages of the High School, I did not intend to introduce the subject in this Report. I have, however, just read some remarks made by George B. Emerson, LL.D., of Boston, at a recent meeting of the Social Science Association, of which he is President, which, in the main, so fully express my own convictions on the subjects referred to, that in concluding what I have to say about our Grammar Schools, I cannot refrain from introducing a portion of them in this connection. Though these remarks were made with particular reference to the Boston Schools, they seem to me very applicable to our

own; and, as expressing the views of one whose whole life has been devoted to the interests of education, are deserving of thoughtful consideration.

“Are the studies pursued in the Grammar Schools what they should be? Is the great fact that, for nearly all the children of the city, the Grammar Schools furnish all the school education they can ever get, sufficiently regarded?

Almost every girl is by nature destined to be a nurse, a mother, a teacher and manager of young children. Do all the girls receive, in the Grammar Schools, all the helps which they might receive, towards performing well and intelligently the duties which belong to those several relations? Ought not every girl to obtain, before she leaves school, some knowledge of the laws of health, some of the great and all-important truths taught by the science of Physiology?

Might not all be taught these great truths? I say not by means of text-books, but by the incomparably more effectual means of good oral instruction? Ought a girl to be allowed to leave one of the best schools in the world, without any special preparation for the highest and most important duties of her future life?

Ought we to consider these schools as what they ought to be, unless boys and girls are taught,—what every decently educated person ought to know,—*what air is*, what are its uses, properties and laws? What *water is*? What *heat and light* are, and how they act upon air and water and upon all forms of animal and vegetable life? Ought not every one to be taught what his own body is, and what it is made of? What food is and how it nourishes the body? Ought not these all-important elements of Chemistry to be taught in every Grammar School? I say not by text books, but by some better means? Ought not chemical lectures, with suitable experiments, to be given in all the Grammar Schools?

Childhood is the time of life during which the meaning of words is most easily learnt, and when all those words ought to be learnt which are essential to reading intelligently the best books. The names of the elementary substances are now an essential part of the language. Most books upon agriculture, upon the nourishment of plants and animals, upon mines and mining, upon volcanos, upon coal, upon rocks and soils, upon precious stones and building stones, upon geology and mineralogy, upon metals for roofing and for sheathing, upon working metals, upon alloying and coining, upon smoke and

steam and clouds and gases, upon dyeing and tanning, upon brewing and distilling, making cider and vinegar, upon soap-making and upon ventilation, and a multitude of other processes and arts, are unintelligible to a person ignorant of the meaning of these words.

Very many of the boys, whose highest and last education is to be given at these Grammar Schools, are destined to the mechanic arts. Should they not, in these schools, make some preparation for their vocation in life? Ought they not to be taught the elements of mechanics, the mechanical powers, how the inclined plane, how wedges and levers and wheels, and pullies and ropes act? Ought they not to be shown what a steam engine is, what pumps are, what the hydraulic press is, and how they act? Ought not these elements of the useful sciences to be taught? Might there not be also taught the properties, the strength and hardness and uses of wood, and iron and the other metals, and of stones?

How delightful would these studies be to teachers and pupils! How incomparably more valuable as furnishing real knowledge, materials for thought and power of observation, than so much of English Grammar, of Arithmetic, and of Reading! How shall the time be found for these additional studies?—say, rather, for these delightful recreations? The time is already found by the precious improvements in grading. Still more may be found by shortening that which is now given to Arithmetic, to Reading and Spelling, and to English Grammar. The arrangements made for teaching Mental Arithmetic and ready reckoning, in the Primary Schools and the lower classes in the Grammar Schools, are very valuable. But most of the time now given to Arithmetic, in the higher classes, is time wasted. It does not prepare for the duties and offices of life. It does not exercise the judgment nor improve the taste. As to the idea that difficult operations in Arithmetic are a valuable exercise of the mind, the fact that Babbage's machine will perform some of the most difficult operations and print the results, in less time than it will take the most skilful reckoner to go through them once, gives us somewhat of an answer. If the doing well what a machine will do better is a valuable exercise for the mind, then the working out of difficult operations in Arithmetic *is a valuable exercise*.

No one can think more highly than I do of the value of the power to read and the beauty of the art of reading. No one rejoices more at the improvements now making in our schools in the management and cultivation of the voice. No one can admire more the series of reading books used in the schools. They are beautiful se-

lections from the best prose and poetry of the language. But they are luxuries. They do not give the materials and the preparation for the labors, the relations, the duties and exigencies of common every-day life which ought to be given by schools which are not only the schools but the only academics and colleges that most of the hard working men will ever have access to. These schools ought to enlarge the practical resources of the laboring man, to lighten and sweeten his daily work, so that he may make his work easier, and do it better and more cheerfully.

No doubt the art of reading well, so far as utterance and voice are concerned, is successfully taught in these schools. Is a love of reading cultivated? Are children taught to read wisely and made to rejoice in reading? Valuable libraries accessible to everybody are found. Do the schools prepare the children in the best manner to use and enjoy them? Are pains taken to form habits of reading good books? of properly studying subjects?

Is History taught in the best manner? This question is suggested by the fact that in some of the schools children are even now allowed—nay, compelled—to *commit to memory the words* of pages of Worcester's History!

Can a more absurd mode of teaching be devised? Can it have any other effect than to disgust the pupil and make the thought of History disagreeable?

If it is desirable to cultivate verbal memory, as I think it is, there are in our language tens of thousands of lines of the most beautiful poetry in the world to exercise the memory upon. And there are few more precious treasures to carry away from school than hundreds of lines of the loftiest and most exquisite English poetry.

Might not means a thousand times more pleasant and more profitable be devised for teaching History? History is a vast study. Very little of it can be taught at school. The best thing that can be done is to show how it ought to be pursued and how interesting, valuable and delightful the study really is.

With the great ability of the masters of the Grammar Schools, might not a most pleasant and useful set of familiar lectures or talks be devised, each gentleman taking a favorite period of history, and giving his lectures in succession to several of the schools, or having pupils from several of the schools meet together to listen to him? so that all the pupils might have the benefit of all his lectures."

HIGH SCHOOL.

The desirableness, and necessity even, of re-modeling the building so long used for the accommodation of this school, and a detailed statement of the plan prepared by the architect under the direction of a committee of the City Government, were so fully presented in my last Report, that I will now only express the regret that the present City Government, to which the whole subject was referred, has made no appropriation for a "consummation so devoutly to be wished," and the hope that one of the first appropriations by the incoming City Government will be for this specific purpose. I invite attention to the following extract from a communication made to me by the Principal of this school.

"I need not again refer you to the fact that almost all repairs upon the High School house have been neglected, in the prospect of an early re-modeling of the entire building; but this re-modeling has been so long deferred that the house imperatively calls for repairs. The pine benches at which boys have sat for more than twenty-six years, do no honor to our city. There are, also, too many pupils crowded into the rooms. During the term beginning with the present school year, there have been temporary seats placed upon the platforms, for a large number of pupils, and the whole number of pupils has exceeded, by more than seventy, the number for whom the rooms were originally constructed. This crowded condition of the school, and uninviting appearance of the rooms, together with the low attainments of many of the pupils admitted, render the task of the teachers in their efforts to make the school what a High School ought to be, one of no little difficulty."

The advantages presented by this school for pursuing the higher branches of an English education, and for preparation for college, under the thorough instruction of its excellent teachers, seem to be highly appreciated by our citizens; and to the existence of such a school

among us is mainly to be attributed the fact, previously mentioned, that comparatively so little encouragement is given in this city for the support of private schools.

I submit the following table to show the several studies pursued in this school during the six months ending in February last, and for a similar period ending in July, together with the number of pupils engaged in each study.

	For 6 mos. ending Feb.			For 6 mos. ending July.		
	BOYS.	GIRLS.	TOTAL.	BOYS.	GIRLS.	TOTAL.
Whole number of pupils,	89	154	243	80	137	217
Reading	89	147	236	75	134	209
Spelling	81	146	227	72	137	209
Writing	88	149	237	74	136	210
Composition	88	149	237	78	136	214
Declamation.....	89	0	89	79	0	79
Natural Philosophy....	19	38	57	42	64	106
Chemistry.....	0	0	0	20	48	68
Astronomy.....	14	26	40	0	0	0
Arithmetic.....	0	0	0	10	28	38
Algebra	58	99	157	55	82	137
Geometry	21	25	46	24	49	73
Trigonometry.....	0	0	0	2	2	4
Surveying.....	0	0	0	12	0	12
English Grammar.....	9	20	29	0	0	0
Rhetoric.....	0	0	0	14	35	49
General History.....	13	19	32	19	35	54
Physical Geography....	27	53	80	0	0	0
Physiology	25	37	62	0	0	0
Book-keeping.....	47	21	68	0	0	0
French	5	39	44	9	49	58
Latin	41	72	113	36	64	100
Greek.....	5	0	5	8	0	8

There is not sufficient prominence given in this school to the interesting and highly important study of English Literature. It does not seem to be distinctly recognized in the Course of Study, and no text-book is prescribed for it. I would recommend the introduction of Cleveland's "Compendium of English Literature," or some similar book, to be carefully read by the more advanced pupils in preparation for occasional stated exercises in the class room, which might consist, in part, at least, of free and familiar conversation, in which pupils as well as teacher should participate, in regard to the authors from whom selections are made, the peculiarities of their style, the times in which they lived, and other related topics. Such an exercise, conducted by a judicious and competent teacher, would be of incalculable benefit to the pupils. This book might also be used as a Reading Book, which is very much needed,—the only one now in use, and which has been for several years, being the "Vocal Culture," a small book, and a very useful one for certain purposes, but by no means adapted to the wants of the school as a Reading Book for daily exercises.

There are certain other studies, such as Botany, Geology, and Natural History, which might very properly receive more prominence in this school than they now do. From the foregoing table it will appear that no attention was paid to either of these studies during the last year.

The number of graduates from this school in July last was forty-one, being one less than in 1865, upon whom the customary Diplomas were conferred in Huntington Hall, with appropriate remarks by Rev. G. N. Webber, a member of the Board. Their names are as follows :

John Coleman Adams,
 Edward Augustine Benner,
 Francis Nelson Chase,
 Frank Fordyce Coburn,
 John Joseph Green,
 George Holbrook Hovey,
 Joseph Gerrett Lennon,
 Edward Jesse Moore,
 John James Pickman,
 James Bartlett Russell,
 Charles Parker Spalding,
 James William Warren,
 Caleb Harvey Webster,
 Moses Wales Webster,
 Horatio Edwin Worcester,
 Albert Dana Wright,

Emily Jane Alford,
 Mary Leslie Allen,
 Annie Alvord Burke,
 Ella Frances Churchill,

Elizabeth Adelaide Clark,
 Ella Prudence Clifford,
 Isabella Coburn,
 Emma Lucy Crosby,
 Helen Porter Cushing,
 Eliza Florence Davis,
 Harriet Coleman Dean,
 Georgia Greene Giles,
 Ellen Hayward,
 Ida Anne Hill,
 Ella Josephine Hulme,
 Ellen Henrietta Mort,
 Marcella Maria Patten,
 Orianna Elizabeth Pevey,
 Mary Jane Rice,
 Edna Creighton Rice,
 Susan Belle Richmond,
 Emma Louise Rogers,
 Emma Runels,
 Lottie Isadore Whitney,
 Abbie Frances Woodward.

The "Carney Medals" for "excellence of character and scholarship," were presented at the same time and place, with a brief address by the Superintendent. The names of the recipients are

Edward A. Benner,
 John J. Green,
 Frank F. Coburn,

Annie A. Burke,
 Marcella M. Patten,
 Mary L. Allen,

It is a gratifying fact, and creditable both to the teachers and pupils, that five of the above class who were examined for admission to College, passed this ordeal very satisfactorily, no one of them being conditioned upon any of the required studies. One was admitted to Harvard College, one to Tufts, and three to Amherst; one of whom was admitted to the Sophomore class.

PERSONAL. — DUTIES, ETC.

One of the duties required of the Superintendent in his annual Report is to present a report of his labors for the year. I do not know that I can do this in any better way than to refer to the several duties prescribed for the Superintendent in Chapter II of the School Regulations, and state in what way I have complied with them. I should greatly prefer to omit any such recapitulation of my duties and labors, but as so many of the citizens are entirely ignorant of them, and some, perhaps, regard the office as a sinecure, it seems desirable for their sakes to speak of them in detail.

Besides the half hour daily, before and after each morning session of the schools, and the additional hour on Wednesday and Saturday afternoons, when the Superintendent is required to be at his office, I have averaged, daily, nearly two hours, beyond the regular school session, engaged in office duties. I have had the care and supervision of all the public schools,—have made since January 1st, nine hundred and eighty-six visits to these schools, some brief, others quite protracted, but each affording me an opportunity to form some opinion of the condition and progress of the school visited,—and in various ways have labored for their improvement. I have very frequently advised with teachers in reference to instruction and discipline, both at my office and in their schools, have paid particular attention to the classification of the schools so as to secure as much uniformity as was practicable in schools of the same grade, and have seen that the standing Regulations and all orders of the Board regarding the schools were carried into effect. I have exerted myself to secure a better attendance upon the schools, and to equalize the numbers attending schools of the same grade. The trans-

fer of all scholars from one school to another has been under my control, and all certificates of such transfer have been signed by me. I have frequently consulted with the appropriate sub-committees, in doubtful or difficult cases. I have paid much attention to cases of truancy, and sought the reformation of such delinquents. I have devoted myself to the study of our school system, and by visiting schools in other cities and towns, whenever practicable, by frequent correspondence with Superintendents and other school officers, by reading numerous school reports, by attending educational meetings, and by various similar ways, have sought to acquaint myself with the general progress of education. I have attended every meeting of the Board, when requested have expressed my opinions on the topics under discussion, have communicated such information as was desired, and have submitted occasional special reports. I have, when requested, attended meetings of standing or general committees, have kept the required list of all applicants to teach, their ages, residence, etc., have rendered to the sub-committees of schools all needed assistance, and kept them advised of matters appertaining to their several schools. The Annual Report required to be made, with statistical tables, and suggestions, is herewith presented. I have carefully examined every bill of which this Board takes cognizance, and when found correct, or made so, have certified to its correctness, and presented the same to the Committee on Accounts. The school houses, yards and appurtenances, methods of heating and ventilating, with reference to the health and comfort of teachers and pupils, and the economical and un-wasteful expenditure of the school appropriation, have received much careful attention. Frequent application has been made by me to the proper officer for any

slight repairs requiring immediate attention. The average expense per scholar in each grade of schools has been computed by me, and may be found in the "Summary of Statistics," and all needed information in regard to non-resident pupils has been laid before the Board. Particular pains have been taken to secure in every instance the payment of tuition by non-resident children. Of my thorough semi-annual examinations of the candidates of the several Primary for the Grammar Schools I have before spoken. Not one of these several hundred candidates has been promoted without a certificate from me which was understood to mean just what it said. No such certificate has ever been signed by me in blank, and left to be given or withheld as the pleasure or caprice of any teacher might determine. All the questions required in the examination of candidates for admission to the High School have been prepared by me at the request of the sub-committee of that school, and such other assistance has been rendered to them as they desired. A constant supply of the numerous necessary blanks for the use of the committee, teachers and myself, has been kept and teachers have been furnished with such blanks, registers, blank books, text books and stationery as they needed. Not a single one of the numerous orders from teachers for books to be supplied to indigent children has been authorized by me until I had ascertained, so far as I could, that the parents were unable to provide them. Reports have been made to me from all the schools at the close of each term, embodying all the information I desired in regard to them, and these have been classified and copied by me into a book prepared for this purpose. At the beginning of each term, a catalogue of the name, age, residence, etc., of every pupil, has heretofore been carefully written out and sent to me, and after being exam-

ined has been filed away. As this devolved much labor upon the teachers, from which little or no benefit has been derived, I have prepared a blank, as a substitute, requiring such few statistical facts as I have deemed important to be known at the commencement of each term. I have also procured the medals and diplomas to be awarded under the rules, and caused them to be properly inscribed. The answering of numerous letters from superintendents, teachers, and others interested in school matters, in regard to salaries, grading of schools, course of study, etc., has required no small amount of time.

To the discharge of the above duties I have devoted my time and attention through the year. With what success they have been performed, must be left for others to say. The entire unanimity of my re-election by this Board, after two years of similar service, their approval of all my recommendations, and co-operation in all my efforts for the improvement of the schools, the appreciation of my services by the City Government as shown by the yearly increase of my salary, and the kindness and courtesy so constantly shown to me by the Board, the whole body of teachers, and the citizens generally, will ever linger most gratefully in my memory. Though a regard for my health, and some other considerations, have induced me to enter upon a different field of labor, yet it is with great reluctance that I leave, for a season, at least, duties so congenial to my tastes, and for which my life's work has been preparing me.

But leaving all personal considerations, let me say that though our Lowell Schools have by no means reached that degree of perfection of which they are capable, in fitting our boys and girls to be useful, intelligent, practical, patriotic, and good men and women, still there are

many visible and palpable indications of improvement which can be fully appreciated only by those who, from year to year, are closely observant of them. There are also causes silently at work from which results still more hopeful will be realized. On the part of the community generally, there seems to be a higher appreciation of the teacher's vocation, a more manifest willingness on the part of parents to co-operate with him in his efforts for the intellectual and moral improvement of their children, and among the teachers, as a body, a deeper feeling of responsibility, and an increasing desire to meet the demands which the progress in every department of education requires of them. In conclusion, I would commend to the thoughtful consideration of all who are laboring to promote the intellectual and moral improvement of the youth of our city, the great truth so beautifully expressed in the following brief extract from Webster:

“If we work upon marble, it will perish; if we work upon brass, time will efface it; if we rear temples, they will crumble into dust; but if we work upon immortal minds,—if we endue them with principles, with the just fear of God and our fellow men,—we engrave on these tablets something which will brighten to all eternity.”

Respectfully submitted,

ABNER J. PHIPPS,

Superintendent of Public Schools.

DECEMBER 31, 1866.

APPENDIX.

NUMBER ONE.

SUMMARY OF TEACHERS' SALARIES.

The salaries for 1867 are to be the same as found below for 1866, with the exception of \$50 additional to the salary of each permanent female teacher, commencing January 1, 1867.

	PER ANNUM.			
	For 1866	In 1865	In 1864	In 1863
HIGH SCHOOL.				
Principal,	\$2,000.00	\$1,600.00	\$1,500.00	\$1,400.00
One Male Assistant, in charge of Girls' room,	1,500.00	1,300.00	1,200.00	1,000.00
Two other Male Assistants, each	1,500.00	1,200.00	1,100.00	1,000.00
Two Female Assistants, each..	500.00	450.00	450.00	400.00
One Female Teacher of Drawing,	400.00	.....	.....	.....
GRAMMAR SCHOOLS.				
Seven Male Principals, each..	1,500.00	1,200.00	1,100.00	1,000.00
One Female Principal,	750.00	500.00	.....	.....
First Assistants, each.....	400.00	350.00	350.00	300.00
Other Assistants, 1st year,...	350.00	300.00	300.00	250.00
2d year,	375.00	325.00	325.00	275.00
after 2d year,	400.00	350.00	350.00	300.00
One Teacher of Penmanship,...	1,500.00	1,200.00	1,000.00	1,000.00
One Teacher of Vocal Music,..	1,500.00	.....	.....	.....
PRIMARY SCHOOLS.				
Teachers, 1st year, each.....	350.00	350.00	300.00	250.00
2d year, each.....	375.00	375.00	325.00	275.00
after 2d year, each,	400.00	400.00	350.00	300.00
TEMPORARY TEACHERS.				
Male Teachers, for every school day's service,*	3.00	3.00	.....	.....
Female Teachers, in H. School, for every school day's service,	1.25	1.00	.....	.....
Female teachers in other schools for every school day's service,	1.00	.80	.....	.....

* Wednesday and Saturday forenoons are reckoned as whole days.

NUMBER TWO.

SERIES OF QUESTIONS PROPOSED FOR THE EXAMINATION
OF APPLICANTS TO ENTER THE HIGH SCHOOL,

JULY, 1866.

GENERAL DIRECTIONS.—No books or helps of any kind, will be allowed on the desks, and none are to be used during the Examination. All communication to be avoided. Each answer should be numbered to correspond with the number of the question. Attend carefully to the writing, and to the use of capitals and marks of punctuation.

ARITHMETIC.

2½ hours will be allowed for this exercise.

1. How many bricks 8 inches long and 4 inches wide will it take to pave a yard 2½ feet long by 12 feet wide?

2. A man has a lot 40 rods long and 23 rods wide; what are the dimensions of a similar lot 9 times as large?

3. Divide 240 apples between Charles, Mary and Jane, so that Charles may have 20 more than Mary, and Mary 20 more than Jane.

4. Divide the difference between $4\frac{3}{4}$ and $6\frac{2}{3}$ by their sum.

5. A field containing 100 acres is $\frac{1}{4}$ of a mile long; how wide is it?

6. A flag staff was broken, and fell, the broken part resting upon the upright, so that the end struck 48 feet from the foot; the upright part measured 36 feet; how long was the staff?

7. What must be the face of a note which when discounted at a bank for four months at 7½ per cent. shall give \$390.025 for proceeds?

8. What is the present worth of \$1986.60 due in 1 year and 3 months, money being worth 8 per cent.? What is the discount?

9. The interest on a note for 3 years and 4 months at 6 per cent. was \$125.09. What was the principal?

10. Sold stock for \$3066, losing $12\frac{1}{2}$ per cent.; if it had been sold for \$4029.60, what per cent. would have been paid?

11. What is the square root of 5.6?

12. If a pipe $1\frac{1}{2}$ inches in diameter will fill a cistern in $30\frac{1}{4}$ minutes, how long would it take a pipe that is 3 inches in diameter?

13. March 20, 1866, sold goods to the amount of \$2000 on 6 months credit. The following payments were made: on the day of purchase,

\$500; May 10, \$350; June 7, \$400. When will the balance become due?

14. What is the least common multiple of 26, 24 and 36?

15. If an orange 5 inches in circumference weighs 15 ounces, what is the weight of an orange 10 inches in circumference?

16. A father promised his son that he would give him as many cents as he could arrange 9 chairs in different positions around a table. How much might be claimed under the promise?

17. A boy had a certain number of pencils; if he should sell them at $\frac{3}{4}$ of a cent apiece he would lose 5 cents, but if he should sell them at $\frac{5}{6}$ of a cent apiece he would gain 5 cents. How many pencils had he?

18. Which is the larger, a sheet of paper $\frac{1}{2}$ a foot square, or one containing $\frac{1}{2}$ a square foot, and how much?

19. What part of $\frac{4}{5}$ is $\frac{1}{8}$?

20. What does a figure denote in the seventh place at the right of the decimal point? In the seventh place at the left?

GRAMMAR.

$1\frac{1}{4}$ hour will be allowed for this exercise.

“Since trifles make the sum of human things,
And half our misery from our foibles springs;
Since life’s best joys consist in peace and ease,
And though but few may serve, yet all may please,
Oh let the ungentle spirit learn from hence
A small unkindness is a great offence.”

1. What transitive verbs do you find in the above extract?

2. What irregular verbs? Give their principal parts.

3. In what mood is each verb in the extract?

4. Name the adjectives, and compare them.

5. What is an abstract noun? Name the abstract nouns in the above.

6. Which of the nouns have no plural?

7. Name the connectives of the several clauses.

8. Parse “springs.”

9. Parse “hence.”

10. What is the object of the verb “learn?” Give the Rule.

11. What is a sentence? Write a sentence that shall contain three nouns in three cases.

12. What is a verb? What properties have verbs?

13. Write a sentence using the word *go* in the potential mood, past perfect tense, third person plural.
14. Write a compound sentence, using *corresponding conjunctions*.
15. How does a declaration made by the indicative mood differ from one made by the potential?
16. Write a sentence using a participle as a verbal noun.
17. Decline I and You.
18. In what moods is the interrogative form of the verb used?
19. Write the plural of calf, 4, trio, eupful, court-martial, man-servant.
20. Analyze the following sentence: Boys and girls who are properly qualified will be admitted to the High School.

GEOGRAPHY.

1½ hour will be allowed for this exercise.

1. What do the British possessions in North America embrace, and for what is the country noted?
2. How is Maryland divided, and what are its staple products?
3. For what is Pennsylvania distinguished? Give its boundaries.
4. What city is called the "Crescent City," and why so called?
5. How will Texas compare in size with Pennsylvania? What is its capital, and on what river situated?
6. What five states are included in Central America?
7. Where are the Bahama Islands? what is their capital? to what nation do they belong?
8. Describe the Amazon River, telling where it rises, in what direction and through what country it flows, and where it empties.
9. What are the chief exports of France?
10. Give the boundaries of Spain.
11. Name the most extensive empire on the globe, and tell what it comprises.
12. Give the boundaries of Siberia.
13. Name the three most populous countries in the world.
14. Name the principal islands of Polynesia.
15. Name the two largest of the United States; also the two most populous.
16. What is the area, in square miles, of Massachusetts?
17. Name the counties of Massachusetts.

18. Give the boundaries of Middlesex County.
19. Give the boundaries of Lowell.
20. Name the cities in Massachusetts.

HISTORY.

1½ hour will be allowed for this exercise.

(In consequence of a change of text-book during the year, the Questions, by previous agreement, are confined to the first 114 pages of Lossing's School History.)

1. Give some account of the *first* voyage made by Columbus in search of a Western Continent, and the discoveries then made by him.
2. Describe the adventures of De Soto, and the end of them.
3. By whom, and when, was the American *Continent* first discovered?
4. Give some account of Bartholomew Gosnold, and his discoveries.
5. When, where, and by whom, was the first permanent settlement made within the territory of the United States?
6. Who were the "Puritans," and why were they so called?
7. When, where, and by how many, was the first settlement made in New England?
8. What can you tell about Roger Williams?
9. Define the difference between a *settlement* and a *colony*.
10. What was the period of settlements in America?
11. Within what period is the colonial history of the United States comprised?
12. How was Negro Slavery in the United States begun?
13. Who was the first Governor of the Plymouth Colony, and who succeeded him?
14. Who was John Winthrop?
15. What change in government took place in New England in 1692?
16. What was the principal event in King George's War?
17. In what did the "French and Indian War" originate, and how long did it continue?
18. In what year occurred "the battle of the Monongahela," and what can you say of Washington's connection with it?
19. What did England gain by the treaty of peace concluded between France and England, February 10, 1763?
20. What land did Spain cede to England in 1763?

S P E L L I N G .

Argillaceous,
Belligerent,
Caterpillar,
Crystalline,
Dysentery,
Exaggerate,
Financier,
Genealogy,
Heresiarch,
Inseparable,

Kaleidoscope,
Litigious,
Maritime,
Neutralizing,
Oxygenate,
Panegyric,
Quintessence,
Rhythmical,
Synecdoche,
Trisyllable.

For the year ending December 31, 1966.

THE AUDITOR'S
Thirty-First Annual Report
OF THE
RECEIPTS AND EXPENDITURES
OF THE
CITY OF LOWELL,
TOGETHER
*With the Treasurer's Account for the Financial Year
Ending December 31, 1866.*



LOWELL:
KNAPP & MOREY, PRINTERS, CITIZEN AND NEWS PRESS,
44 Central Street.
1867.

CITY OF LOWELL.

IN COMMON COUNCIL, May 28, 1867.

Read and sent up to the Board of Aldermen.

GEORGE GARDNER,
Clerk Common Council.

IN BOARD OF ALDERMEN, May 28, 1867.

Received and read.

JOHN H. McALVIN,
City Clerk.

Auditor's Report

OF THE

RECEIPTS AND EXPENDITURES

FOR THE YEAR ENDING

DECEMBER 31, 1866.

AUDITOR'S REPORT.

CITY OF LOWELL,
AUDITOR'S OFFICE, May 28, 1867. }

To the City Council of the City of Lowell:

The Auditor of Accounts has the honor herewith to present to the City Council the Thirty-first Annual Report of the Receipts and Expenditures of the City of Lowell, for the financial year which terminated on the 31st day of December, 1866, with the details under the separate heads.

Annexed are schedules of all the property of the City, a statement of the City Debt, and the debts due the City.

R E C E I P T S,

The whole amount of money received into the Treasury from all sources, from December 31st, 1865, to December 31st, 1866, was....\$545,765 02

Of this amount there was received

For Taxes of 1859,.....	\$	1 50	
Taxes of 1861,.....		43 68	
Taxes of 1862,.....		25 95	
Taxes of 1863,.....		31 60	
Taxes of 1864,.....		93 46	
Taxes of 1865,.....		4,325 67	
Taxes of 1866,.....		314,545 59	
		<hr/>	\$319,067 45

Total amount received for Taxes,	319,067 45
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Received on account of RE-
SERVED FUND:

From Huntington Hall, for rent,.	3,706 50
From Jackson Hall, for rent,....	147 00
From Market House Building, rent, (of store and cellar,)....	480 00

<i>Amounts carried forward, ..</i>	\$1,333 50	<hr/>	\$319,067 45
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<i>Amounts brought forward...</i>	\$4,333 50	\$319,067 45
Received on account of RE- SERVED FUND:		
From County of Middlesex, for rent of Police Court Rooms, in Market House Building.....	300 00	
From City Government Building for rent of stores.....	1,750 00	
From heating stores in City Gov- ernment Building.....	225 00	
From Proprietors of Carleton Block, for heating with steam..	575 00	
From James Howard, Superin- tendent of City Scales, fees for weighing.....	358 76	
From James Howard, for fees as Measurer of Wood and Bark...	280 70	
From Sydney Davis, Superintend- ent of City Scales, fees for weighing.....	325 32	
From Sydney Davis, for fees as Measurer of Wood and Bark...	241 25	
From City Clerk, for Marriage Certificates.....	365 50	
From City Clerk, for Recording Mortgages.....	82 00	
From City Clerk, for Recording Assignments of Wages.....	248 20	
From City Clerk, for Recording Mortgages and Assignments of Wages.....	85 20	
From City Clerk, for sundry Licenses.....	1,210 30	
From City Clerk, for Dog Licenses,	56 00	
From Nathan Allen, Superintend- ent of Burials, for use of hearses,	18 05	
From George E. Pinkham, Super- intendent of Burials, for use of hearses.....	53 30	
From John P. White, for pedler's license.....	25 00	
From William H. Young, for haw- ker's and pedler's license.....	25 00	
From Calvin Philbrick, for waste paper.....	9 74	
From C. W. Dodge, for use of Ward Room No. 3,.....	6 00	
<i>Amounts carried forward.</i>	\$10,573 82	\$319,067 45

Amounts brought forward, . \$10,573 82 \$319,067 45

Received on account of RE-
SERVED FUND:

From Josiah B. French, for tax to Dix & Wilson in 1863, with costs of sale, advertising, inter- est, &c, on the same,	39 95		
From heirs of A. J. Webster, for taxes of 1863 and 1864, with costs of sale, advertising, inter- est, &c., on the same,	31 16		
From Commonwealth, for rent of Armories for 1863, 1864 and 1865,	1,062 50		
From Thomas G. Gerrish, for old desk and mat,	6 25		
From Josiah Gates, for old Hears House, School Street Burying- ground,	40 00		
From Carleton & Hovey, for rent of attic in City Government Building,	6 00		
Received for costs on Taxes, and interest on the same,	665 89		
	<u>12,425 57</u>		
		<u>12,425 57</u>	

Received on ac't of SCHOOLS:

From Commonwealth, being the City's proportion of the School Fund for 1865,	843 75		
From sundry persons, for tuition, &c.,	1,071 94		
	<u>1,915 69</u>		
		<u>1,915 69</u>	

Received on account of SCHOOL
HOUSES:

From George W. Haseltine, for old iron,	25 06		
From Mrs. B. F. French, for one- half of the expense of building fence between High School-house yard and her premises,	55 85		
From Woods & Sherwood, for ven- tilators,	40 00		
	<u>\$120 91</u>		
<i>Amounts carried forward, ..</i>		<u>\$333,408 71</u>	

<i>Amounts brought forward,..</i>	\$120 91		\$333,408 71
Received on account of SCHOOL HOUSES:			
From S. N. Proctor. for rent of part of School-house yard on Charles street,.....	5 00		
From L. G. Howe, for broken glass,	2 50		
From Thomas Kane, (in part pay- ment,) for School-house and land on Mill Street, sold by order of the City Council. \$365.00, in- terest on the same, \$35.25,....	400 25		
From H. H. Wilder & Co., for soap-stone,.....	3 00		
From Harlin Pillsbury, for one- half the cost of division fence between his estate and the High School-house land,.....	26 43		
From George Hedrick, for stone step,.....	4 00		
	<u>562 09</u>		562 09
Received on account of ROADS AND BRIDGES:			
From sundry persons on account of sidewalk assessments, street materials, coal, labor, &c.,.....	2,978 81		
	<u>2,978 81</u>		2,978 81
Received on account of RELIEF OF SOLDIERS' FAMI- LIES (and STATE AID):			
From Commonwealth, reimburse- ment for State aid rendered to the families of Volunteers in 1863 and 1865 (in part),.....	62,111 57		
From George Parks, on account of Doct. D. Gaskins' bill for coffin, case and disinterring body of George W. Parks, &c., in March 1864,.....	50 90		
	<u>62,162 47</u>		62,162 47
<i>Amount carried forward,,.....</i>			\$399,112 08

Amount brought forward,.....\$399,112 08

Received on account of PAU-

PERS.:

From Lorenzo Phelps, for sales of vegetables and sundry articles from the Farm,.....	940 67
From Lorenzo Phelps, for board of children of William Kitchen at Almshouse,.....	79 00
From City of Chelsea, for support of boys at the Almshouse,.....	1,223 50
From Samuel Boorn, for support of daughter at State Lunatic Hospital, (Worcester,).....	20 00
From Nathan C. Morse, for support at the State Lunatic Hospital, (Worcester),	111 75
From Jesse Papps, for board at Almshouse and State Lunatic Hospital, (Worcester,).....	156 35
From County of Middlesex, for transportation of Lunatic Paupers,.....	90 00
From Town of Pembroke, for aid rendered Sarah A. Ford and daughter,.....	90 00
From Town of Haverhill, for aid furnished Sabra A. Page at Almshouse,.....	9 86
From City of Lawrence, for aid rendered Charles Knapp,.....	45 00
From Town of Chelmsford, for aid rendered Joanna Murphy,.....	11 25
From Calvin T. Chamberlin, on overdraft,	2 00
From Moses W. Kidder, on draft of July, 1865, the amount having been paid on execution,...	5 00
From Nathan Allen, guardian, for board of Ella C. Downing at the State Industrial School, (Lancaster,).....	13 71
From John Carberry, for support of Sarah Cunningham,.....	8 00
From Hanover Dickey, for interest on note, (for land),.....	21 00

Amounts carried forward,.. \$2,827 09

\$399,112 08

<i>Amounts brought forward,..</i>	\$2,827 09	\$399,112 08
Received on account of PAU- PERS:		
From City of Boston, for aid rendered Thomas Murphy and family,	17 00	
From Town of Billerica, for board of Rebecca Dame at the Almshouse,	1 57	
From Town of Billerica, for burial of Caleb Saunders,	5 00	
From City of Fall River, for aid rendered Mary McKenny and children,	6 00	
From estate of Peter Duval, for wood and funeral expenses,	7 25	
From City of Lawrence, for aid rendered Nancy M. Traverse and child,	12 00	
From City of Lawrence, amount of George E. Pinkham's bill for professional services,	6 00	
From City of Lawrence, for aid rendered family of James McClennan,	4 25	
From City of Lawrence, for board of two children at the Almshouse,	2 00	
From Town of Billerica, for aid rendered John Stearns,	2 25	
From C. B. Coburn & Co., for oil barrels,	3 00	
From Town of Tewksbury, for aid rendered Catharine Shedd,	5 50	
From Patrick Daley, for board at the Almshouse,	10 00	
From Town of Carlisle, for burial of Emeline Blaisdell,	5 00	
From L. R. Bachelder & Co., for uncalled for bills on draft of 1863,	12 32	
From Ellen Oakes, for board at the Almshouse,	18 00	
	<hr/>	2,944 23
Received on ac't of POLICE:		2,944 23
From Bickford Lang, City Marshal for services of Police Officers, ..	81 50	
	<hr/>	
<i>Amounts carried forward, ..</i>	\$81 50	\$402,056 31

<i>Amounts brought forward, ..</i>	\$81 50	\$402,056 31
Received on ac't of POLICE:		
From Wm. A. Richardson, Judge of Probate, for fees due to officers in Reform and Industrial cases for the years 1863, 1864 and 1865,	113 40	
From John H. McAlvin, for services of Police Officers at Levee of the High School Association in 1865,	8 00	
From Samuel P. Hadley, Jr., Clerk of the Police Court, for services of Police Officers, witnesses' fees, &c.,	2,956 95	
From Bickford Lang, City Marshal, for services of Police officers at High School Levee,	9 00	
From Bickford Lang, City Marshal, for transportation of persons to State Industrial School at Lancaster, and Nautical State Reform School,	37 15	
From Sisters of Charity, for services of Police Officers at Fair, ..	15 75	
From Henry Martin, for amount uncalled for, on draft of 1863, ..	3 00	
	<u>3,224 75</u>	3,224 75
Received on account of FIRE DEPARTMENT:		
From Harrison Flint, for old Hose,	29 16	
From Joel Jenkins, for old brass and iron,	19 24	
From Luke C. Dodge, for old iron,	48 23	
From J. W. Bennett, for old iron,	1 90	
	<u>98 53</u>	98 53
Received on account of SEWERS AND DRAINS:		
From Leonard Wood, for sewer assessment in Charles St. in 1851,	21 75	
From Asa Austin, for assessment for sewer in Tyler street,	4 86	
	<u>26 61</u>	26 61
<i>Amount carried forward,</i>		\$405,406 20

Amount brought forward,.....\$105,406 20

Received on account of COM-
MONS:

From George W. Haseltine, for old iron,.....	6 34		
From John Holt, for grass, (Belvidere Park,).....	15 00		
From S. L. Ward, for grass, (North Common,).....	10 00		
	<u>31 34</u>		
		<u>31 34</u>	

Received on account of RE-
PAIRS OF PUBLIC
BUILDINGS:

From H. H. Wilder, for old lead,.	9 00		
From Boston & Lowell Railroad Co., for one-half of the expense of repairing roof of Huntington Hall Building in 1865,.....	148 17		
From Luther Richards, for mahogany writing desk,.....	25 00		
From Bickford Lang, for damage done to station house of the police,.....	5 00		
From L. G. Howe, for old steps,.	15 38		
From James M. McCoy, for two tables,.....	28 00		
From Sisters of Charity, for two mirror plates,....	1 75		
From Luther Richards, for labor,.	17 25		
	<u>249 55</u>		
		<u>249 55</u>	

Received on account of CITY
LIBRARY:

From George C. Edwards, Librarian, for subscriptions,.....	706 50		
From George C. Edwards, Librarian, for catalogues,.....	59 10		
From George C. Edwards, Librarian, for supplements,.....	10 90		
From George C. Edwards, Librarian, for fines,.....	14 65		
From George C. Edwards, Librarian, for catalogues and supplements,	11 80		

Amounts carried forward,.. \$802 95

\$105,687 09

<i>Amounts brought forward, ..</i>	\$802 95		\$405,687 09
Received on account of CITY LIBRARY:			
From George C. Edwards, Librarian, for lost books and old paper,	1 75	804 70	804 70
Received on account of INTER- EST ON CITY DEBT:			
From Commonwealth, for interest on State Tax paid before due, ..	518 50	518 50	518 50
Received on account of LIQUOR AGENCY:			
From Charles R. Kimball, Agent, for sales,	2,902 52	2,902 52	2,902 52
Received on account of TEM- PORARY LOANS:			
From Railroad National Bank, ...	103,250 00	103,250 00	103,250 00
Received on account of COR- PORATION TAX:			
From Commonwealth, for Taxes on Corporation Stocks collected by the State, for 1865,	16,818 17		
From Commonwealth, for Taxes on Corporation Stocks collected by the State, for 1866, (in part), ..	15,784 04	32,602 21	32,602 21
			<u>\$545,765 02</u>

EXPENDITURES.

The amount expended and ordered to be paid from the Treasury the past year, from December 31, 1865, to December 31, 1866, was..... \$485,126 23

These expenditures are chargeable to the following Appropriations or Accounts, viz:—

To Schools,	\$ 66,398 31	
School Houses,	5,495 90	
Roads and Bridges,	28,499 12	
Reserved Fund,	14,431 33	
Relief of Soldiers' Families,	5,987 00	
Paupers,	15,248 96	
Police,	27,358 14	
Fire Department,	49,717 92	
Sewers and Drains,	580 15	
Commons,	1,216 33	
Printing and Advertising,	2,313 09	
Lighting Streets and Public Buildings, ...	9,387 76	
Repairs of Public Buildings,	3,150 69	
City Library,	1,505 45	
Salaries,	11,850 00	
Interest on City Debt,	26,852 00	
Liquor Agency,	2,925 40	
Disabled Soldiers, Sailors and their families, &c.,	30,248 00	
	<hr/>	303,165 55
To Temporary Loans, Railroad National Bank,	103,250 00	
	<hr/>	103,250 00
To the above, add the amount paid for State Tax of 1866,	62,220 00	
	<hr/>	62,220 00
To the above, add County Tax for 1866,	16,490 68	
	<hr/>	16,490 68
Making the whole amount of expenditures for the year 1866,		<u>\$485,126 23</u>
The whole amount of receipts was,	\$545,765 02	
The whole amount of expenditures was,	485,126 23	
	<hr/>	
Excess of receipts over expenditures,		<u>\$60,638 79</u>

The balance in the Treasury, January 1st, 1866, was.....	58,306 72	
The whole amount received into the Treasury in 1866, was.....	545,765 02	
Making a total of.....	604,071 74	
The amount actually paid from the Treasury, for all purposes, for the year ending Decem- ber 31st, 1866, was.....	480,902 43	123,169 31
The balance in the Treasury, as above, is....	123,169 31	
There remains the amount of the unpaid drafts of 1866, and previous years, including all of the December drafts of 1866, amounting to.....	15,683 27	
Making the actual balance in the Treasury,..		<u>\$107,486 04</u>
The total amount of the City Debt, December 31st, 1865, was.....		<u>\$452,000 00</u>
The total amount of the City Debt, December 31st, 1866, is.....		<u>\$452,000 00</u>

All of which is respectfully submitted,

GEORGE GARDNER,

Auditor of Accounts.

Appropriations and Expenditures.

THE AMOUNT OF THE SEVERAL APPROPRIATIONS MADE BY THE CITY COUNCIL DURING THE YEAR 1866—THE TRANSFERS FROM ONE APPROPRIATION TO ANOTHER—THE UNEXPENDED BALANCES OF THE PREVIOUS YEAR—THE AMOUNT RECEIVED INTO THE TREASURY FROM OTHER SOURCES THAN TAXES, AND THE EXPENDITURES IN DETAIL UNDER EACH APPROPRIATION, AND THE UNDRAWN BALANCES; ALSO, THE AMOUNT OF CITY DEBT—DEBTS DUE THE CITY—SCHEDULES OF REAL AND PERSONAL PROPERTY, &C.

SCHOOLS.

Balance undrawn, January 1, 1866,.....	\$	141	46	
Appropriated and assessed in 1866,.....		60,000	00	
				\$60,141 46
Transferred from Permanent Loans,.....		20,000	00	
				20,000 00
Received from appropriation for Lighting Streets and Public Buildings, for pail and broom,...		1	12	
Received from Appropriation for Repairs of Public Buildings, for pails, brushes and mats,...		3	50	
				4 62

RECEIVED INTO THE TREASURY.

From Commonwealth, School Fund,.....	\$843	75	
Moses G. Howe, for tuition,.....	30	00	
George Whitney, for tuition,.....	9	00	
Addie Whitney, for tuition,.....	4	00	
John A. Knowles, Jr., for old stove,.....	3	00	
<i>Amounts carried forward,.....</i>	\$889	75	\$80,146 08

<i>Amounts brought forward,.....</i>	\$889 75	\$80,146 03
From Mary A. McIntire, for tuition,.....	5 00	
John P. Richardson, for tuition,.....	10 00	
Horatio E. Worcester, for tuition,.....	20 00	
George L. Clark, for tuition,.....	40 00	
Sarah E. French, for tuition,	10 00	
George H. Hovey, for tuition,.....	10 00	
Fanny M. Clark, for tuition,.....	40 00	
Martha S. Whittemore, for tuition,.....	40 00	
Lucena Bowers, for tuition,.....	5 00	
James M. Coburn, for tuition,.....	30 00	
Nellie G. Hunt, for tuition,.....	40 00	
Henry A. Knight, for tuition,.....	5 00	
David G. Lang, for tuition,.....	13 00	
Lottie I. Whitney, for tuition,.....	20 00	
Laura J. McIntire, for tuition,.....	5 00	
Daniel Waters, for tuition,.....	2 50	
Ira M. Chase, for tuition,.....	8 00	
Alice W. Carpenter, for tuition,.....	15 00	
Addie S. Whitney, for tuition,.....	5 00	
George H. Hunt, for tuition,.....	10 00	
Lucretia R. Bowers, for tuition,.....	5 00	
Selina B. Woodbury, for tuition,.....	5 00	
John T. Smith, for tuition,.....	10 00	
George F. Chase, for tuition,.....	25 00	
Laura J. Chase, for tuition,.....	15 00	
Abby Underwood, for tuition,.....	5 00	
Corrine E. Coburn, for tuition,.....	3 00	
George B. Whitney, for tuition,.....	20 00	
George W. Clement, for tuition,.....	10 00	
Sarah E. Dow, for tuition,.....	3 00	
George F. Dyar, for tuition,.....	10 00	
L. G. Howe, for coal-dust,.....	16 36	
L. G. Howe, for table,.....	6 75	
J. M. McCoy, for covering erasers,.....	78	
James F. Woodbury, for tuition,.....	5 00	
George Clement, for tuition,.....	10 00	
Luke C. Dodge, for old iron,.....	16 00	
Abner J. Phipps, for singing books, \$529.55		
less for spurious money, \$3,00,.....	526 55	
		1,915 69
		<u>\$82,061 77</u>

EXPENDITURES.

Paid for INSTRUCTION:—

HIGH SCHOOL.

To Charles C. Chase, Principal,.....	\$2,000 00	
James S. Russell,.....	1,500 00	
Joseph H. McDaniels,.....	1,495 50	
Gorham D. Williams,.....	1,125 00	
Charles A. Chase,.....	216 00	
Mary A. Webster,.....	500 00	
Elizabeth B. Russell,.....	485 00	
Augusta L. Brigham,.....	300 00	
		<u>\$7,621 50</u>

BARTLETT SCHOOL.

To Samuel Bement, Principal,.....	1,500 00	
Marianne B. Kent,.....	394 00	
Mary E. Pike,.....	388 00	
Caroline E. Holt,.....	398 00	
Marietta Melvin,.....	400 00	
Mary C. Gardner,.....	400 00	
Sabra Wright,.....	388 00	
Sophia P. Wetherbee,.....	400 00	
Helen L. Moore,.....	2 00	
Sarah A. Hadley,.....	18 00	
Nellie Hunt,.....	12 00	
		<u>4,300 00</u>

EDSON SCHOOL.

To Perly Balch, Principal,.....	1,500 00	
Harriet C. Hovey,.....	400 00	
Mary F. Carleton,.....	400 00	
Mary F. Dana,.....	390 50	
Maria C. Richardson,.....	400 00	
Olive W. Beane,.....	397 00	
Anna A. Sargent,.....	381 25	
Mary A. Balch,.....	332 55	
Addie L. Sargent,.....	21 00	
Nellie M. Gates,.....	9 50	
Helen C. Frye,.....	3 00	
		<u>4,234 50</u>

COLBURN SCHOOL.

To Fidelia O. Dodge, Principal,.....	750 00	
Elizabeth W. Frost,.....	354 00	
Susan M. Andrews,.....	356 25	
Sarah J. Gilman,.....	2 00	
Sarah C. Fiske,.....	27 00	
S. E. Dean,.....	6 00	
Sarah E. Scales,.....	4 00	
		<u>1,499 25</u>

Amount carried forward,..... \$17,655 55

Amount brought forward,.....\$17,655 55

Paid for INSTRUCTION:—

FRANKLIN SCHOOL.

To Amos B. Heywood, Principal,.....	1,500 00	
Mary F. Hopkins,.....	400 00	
Elizabeth W. Clement,.....	400 00	
Sarah C. Weymouth,.....	400 00	
	<hr/>	2,700 00.

GREEN SCHOOL.

To Charles Morrill, Principal,.....	1,500 00	
Gertrude Sheldon,.....	400 00	
Mary E. Wight,.....	400 00	
Ellen S. Burrill,.....	371 33	
Jennie H. Dennis,.....	400 00	
Clara E. Bailey,.....	24 00	
	<hr/>	3,095 33

MANN SCHOOL.

To Samuel A. Chase, Principal,.....	1,500 00	
Eliza A. D. Tapley,.....	400 00	
Laura F. Howe,.....	388 00	
Emma L. Pevey,.....	12 00	
	<hr/>	2,300 00

MOODY SCHOOL.

To Joseph Peabody, Principal,.....	1,500 00	
Frances A. Holden,.....	400 00	
Emma A. Battles,.....	350 00	
Sarah E. Bailey,.....	389 00	
Diana M. Huntoon,.....	400 00	
Helen A. Haggett,.....	356 25	
Laura J. Pindar,.....	50 00	
Anna E. Davis,.....	11 00	
	<hr/>	3,456 25

VARNUM SCHOOL.

To Daniel P. Galloupe, Principal,.....	1,500 00	
Abbie M. Edgell,.....	388 00	
Harriet Bradley,.....	369 81	
Sarah A. Bradley,.....	400 00	
Anna E. Davis,.....	35 00	
Helen C. Frye,.....	1 00	
	<hr/>	2,693 81

TEACHER OF PENMANSHIP.

To Bertram Harrison,.....	1,500 00	
	<hr/>	1,500 00

TEACHER OF VOCAL MUSIC.

To George F. Willey,.....	328 12	
	<hr/>	328 12

Amount carried forward,.....\$33,729 06

Amount brought forward,.....\$33,729 06

· Paid for INSTRUCTION:—

PRIMARY SCHOOLS.

No. 1.—To Antoinette Wight,.....	400 00	
	<u> </u>	400 00
No. 2.—To Sarah A. Hadley,.....	72 00	
Lucy A. Hill,.....	200 00	
Harriet A. Hadley,.....	60 00	
	<u> </u>	332 00
No. 3.—To Stella Tullock,.....	353 75	
Sarah E. Scales,.....	2 50	
	<u> </u>	356 25
No. 4.—To Lucy F. Carleton,.....	400 00	
	<u> </u>	400 00
No. 5.—To Elizabeth A. Stearns,.....	400 00	
	<u> </u>	400 00
*No. 6.—		
No. 7.—To Frances E. Moore,.....	381 25	
	<u> </u>	381 25
No. 8.—To Emily T. Dickerman,.....	200 00	
Martha A. Franklin,.....	147 50	
	<u> </u>	347 50
No. 9.—To Martha S. Williams,.....	388 00	
Sarah E. Scales,.....	12 00	
	<u> </u>	400 00
No. 10.—To Martha A. Neal,.....	400 00	
	<u> </u>	400 00
No. 11.—To Emma R. Welch,.....	343 66	
	<u> </u>	343 66
No. 12.—To Eliza Merriam,.....	400 00	
	<u> </u>	400 00
No. 13.—To Fannie M. Wilkins,.....	350 00	
	<u> </u>	350 00
No. 14.—To Adeline Rea,.....	200 00	
Harriet A. Hadley,.....	147 50	
	<u> </u>	347 50
No. 15.—To Mary A. Tapley,.....	391 00	
Harriet A. Hadley,.....	9 00	
	<u> </u>	400 00
No. 16.—To Sarah C. Fiske,.....	48 00	
	<u> </u>	48 00
No. 17.—To Hannah H. Currier,.....	392 00	
Helen M. Hunt,.....	7 00	
Helen C. Frye,.....	1 00	
	<u> </u>	400 00

Amount carried forward.....\$39,135 22

Amount brought forward,.....\$39,435 22

Paid for INSTRUCTION:—

No. 18.—To Eliza Cowley,.....	400 00	
		400 00
No. 19.—To Laura J. Pindar,.....	350 00	
Isabella E. Horner,.....	43 75	
		393 75
No. 20.—To Martha L. Wilkins,.....	338 41	
Marion L. Wilkins,.....	16 00	
		354 41
No. 21.—To Sarah L. Gates,.....	381 06	
S. L. Dean,.....	17 00	
		398 06
No. 22.—To Anna E. Richardson,.....	343 66	
		343 66
No. 23.—To Nellie L. Ashworth,.....	379 67	
Emma L. Pevey,.....	18 00	
		397 67
No. 24.—To Ellen A. Bridge,.....	400 00	
		400 00
No. 25.—To Fanny E. Lawson,.....	396 00	
Harriet A. Hadley,.....	4 00	
		400 00
No. 26.—To Nellie M. Brown,.....	349 75	
Sarah A. Hadley,.....	6 50	
		356 25
No. 27.—To Charlotte S. Kaime,.....	300 00	
Sarah E. Scales,.....	72 00	
		372 00
No. 28.—To Emily M. Warren,.....	389 00	
Nellie M. Hunt,.....	11 00	
		400 00
No. 29.—To Jane E. Horner,.....	400 00	
		400 00
No. 30.—To Mary E. Hardman,.....	343 66	
		343 66
No. 31.—To Abby D. Gates,.....	400 00	
		400 00
No. 32.—To Ellen F. Coughlan,.....	400 00	
		400 00
No. 33.—To Maria Osgood,.....	389 50	
Helen C. Frye,.....	10 50	
		400 00
No. 34.—To Elizabeth S. Lowe,.....	400 00	
		400 00
No. 35.—To Aurelia L. Howe,.....	370 48	
Sarah C. Fiske,.....	24 00	
		394 48

Amount carried forward,.....\$46,389 16

<i>Amount brought forward,</i>		\$46,389 16
Paid for INSTRUCTION:—		
No. 36.—To Mary A. Beard,.....	395 00	
Sarah E. Scales,.....	5 00	
	<hr/>	400 00
No. 37.—To Lucretia A. Day,.....	400 00	
	<hr/>	400 00
No. 38.—To Mary O. Kidder,.....	356 25	
	<hr/>	356 25
No. 39.—To Isabella E. Horner,.....	296 91	
Helen C. Frye,.....	39 00	
	<hr/>	335 91
No. 40.—To Sarah P. Peaslee,.....	400 00	
	<hr/>	400 00
No. 41.—To Mary E. Way,.....	400 00	
	<hr/>	400 00
No. 42.—To Etta Frye,.....	369 74	
Helen C. Frye,.....	23 00	
	<hr/>	392 74
No. 43.—To Mary F. Cummiskey,.....	400 00	
	<hr/>	400 00
No. 44.—To Mary L. Hill,.....	400 00	
	<hr/>	400 00
No. 45.—To Ellen M. White,.....	381 25	
	<hr/>	381 25
No. 46.—To Mary E. Page,.....	331 66	
Sarah F. Dillingham,.....	12 00	
	<hr/>	343 66
No. 47.—To Miranda W. Bradley,.....	360 73	
Sarah F. Dillingham,.....	29 00	
Martha A. Franklin,.....	1 00	
	<hr/>	390 73
No. 48.—To S. Fanny Nealley,.....	400 00	
	<hr/>	400 00
		<hr/>
		51,389 70

Paid SUPERINTENDENT OF PUBLIC
SCHOOLS and SECRETARY OF THE
BOARD OF SCHOOL COMMITTEE:—

To Abner J. Phipps, Superintendent,.....	1,700 00	
Abner J. Phipps, Secretary,.....	300 00	
	<hr/>	2,000 00

Amount carried forward,.....\$53,389 70

Amount brought forward,.....\$53,389 70

•Paid for BUILDING FIRES, SWEEPING,
CLEANING, &c.:—

To Teachers and others,.....	729 21	
	<hr/>	729 21

Paid for BOOKS and STATIONERY, and for
BOOKS, &c., for Children of Indigent
Parents:—

To Joshua Merrill,.....	252 94	
B. C. Sargeant,.....	154 03	
J. J. Judkins,.....	22 80	
Sylvester Wilkins,.....	96 10	
S. B. Eaton,.....	138 97	
Abel Whitney,.....	124 05	
F. P. Coggeshall,.....	111 68	
S. Urbino,.....	2 12	
W. A. Wilde,.....	18 64	
A. J. Phipps,.....	8 00	
A. L. Brigham,.....	36 96	
George Ripley & Co.,.....	14 75	
Oliver Ditson & Co., singing books,.....	650 45	
S. B. Simonds, binding books,.....	3 23	
John T. Billings, ink-stands,.....	3 00	
	<hr/>	1,637 72

Paid for PRINTING and ADVERTISING,
&c.:—

To Stone & Huse,.....	110 50	
Knapp & Morey,.....	127 95	
B. H. Penhallow,.....	49 25	
Charles O. Rogers,.....	15 62	
Knapp & Morey, printing 4,000 copies School Committee's Report of 1865,.....	534 88	
Joshua Merrill, binding 4,000 copies School Committee's Report of 1865,.....	45 00	
Joel Powers, distributing 3,200 copies School Committee's Report of 1865,.....	13 33	
	<hr/>	896 53

Paid for SUNDRIES:—

To A. J. Phipps, for cash paid out for postage Stamps, expressage, &c.,.....	26 03
George W. Eastman, ringing bell, (Franklin School House,).....	32 00
American Tablet Co., for black-board surface,	413 00
	<hr/>

Amounts carried forward,.....\$471 03\$56,653 16

Of this amount \$105.00 was for building fires.

<i>Amounts brought forward,.....</i>	\$471 03	\$56,653 16
Paid for SUNDRIES:—		
To George Thatcher, clocks, repairing clocks and bells,	55 50	
Horace R. Barker, steam pipe, couplings, labor, &c.,.....	223 21	
H. R. Barker & Co., steam-pipe, couplings, labor, &c.,.....	1,105 16	
Cole & Nichols, desk irons,.....	159 45	
Lowell Machine Shop, castings,.....	1 28	
C. B. Coburn & Co., kerosene oil, brushes, tallow, glass, dusters, alcohol, lead, chalk lines, hemp cord, &c.,.....	40 33	
Abner Kittredge, painting desks, &c.,.....	27 24	
George N. Osgood, varnishing desks,.....	20 00	
J. B. Fielding, painting, graining, varnishing, &c.,	10 90	
Adams, North & Co., floor brushes, enamelled cloth, mats, cocoa matting, chairs, bocking, dusters, &c.,.....	185 30	
B C. & M. A. Benner, chairs, dust brushes, oil-cloth, enamelled cloth, &c.,.....	105 12	
Albert Merriam, repairing settees,.....	16 83	
Jacob Nichols, chairs,.....	9 00	
Daniel Carver, re-seating chairs,.....	29 06	
Fanny Carver, re-seating chairs,.....	4 20	
Jonathan French, brooms,.....	10 50	
Charles Smith, brooms,.....	10 00	
A. L. Russell, brooms,.....	28 00	
Town of Chelmsford, for tuition of children in School District No. 6,.....	33 60	
Ann McCormick, washing Varnum School House,.....	11 23	
Joseph Peabody, for cash paid out for washing School House,.....	3 30	
John McAleer, for labor,.....	16 67	
Lorenzo G. Howe, for use of horse and wagon, Buttrick & Co., matches, sperm oil, salt, pails, wicking, &c.,.....	18 78	
Streeter & Powers, matches,.....	4 25	
Fletcher & Mansur, pails, brooms and basket, A. L. Brooks, lumber,.....	22 04	
Eliphalet Hills, turning,.....	2 75	
Milton Aldrich, wooden pins,.....	1 46	
M. C. Pratt, sawing,.....	65	
H. A. Hildreth, wire,.....	45	
Maria Stockbridge, washing Bartlett School House,	6 00	
<i>Amounts carried forward,.....</i>	\$2,699 98	\$56,653 16

Amounts brought forward, \$2,699 98 \$56,653 16

Paid for SUNDRIES:—

To Bertram Harrison, filling diplomas, (High School,)	10 00	
Charles C. Chase, for cash paid out for ribbon, &c., for mounting diplomas (High School,)	7 87	
W. H. Dyar, use of piano, (High School examination,)	3 00	
Cushing & Mack, galvanized iron, stove, pipe, cleaning and repairing stoves, &c.,	186 37	
T. Costello & Co., stoves, funnel, labor, &c., ..	199 11	
J. W. Nash & Co., grate linings, repairing stoves, &c.,	37 03	
N. J. Wier & Co., stove, pipe, repairs, &c., ..	102 26	
H. H. Wilder & Co., dippers, labor on pump, pipe, &c.,	15 68	
Henry Albro, thermometers,	5 50	
Belvidere Woolen Manufacturing Co., wool skins,	3 00	
J. A. Brabrook, wool skins,	19 25	
Fielding & Bartlett, hardware,	11 29	
Chase, Sargent & Shattuck, hardware,	52 25	
R. G. Crowell, for wood-saw,	1 50	
Jacob Rogers, hardware,	69 91	
Carleton & Hovey, alcohol, sulphuric acid, nitric acid, ink powder, oxalic acid, &c., (for High School,)	24 59	
T. H. Curtis, keys, repairing locks and keys,	7 07	
Richardson & Cutter, keys and repairing locks,	3 40	
Amos Colby, repairing pumps,	52 88	
M. C. Pratt, dressing birch boards,	1 28	
W. & J. W. Murkland, labor and use of tools,	10 27	
Trumbel & Haskell, fitting key,	50	
William E. Livingston, cement,	9 50	
Henry S. Orange, repairing lanterns, &c., ..	2 37	
Ira A. Clough, kerosine burners and wicks, ..	65	
F. & E. Bailey, thermometers,	4 50	
James Farley, oil fillers, &c.,	1 60	
H. P. Clough, blacksmithing,	5 08	
		3,547 69
*To amount credited Reserved Fund, for expense of heating High and Green School Houses,	943 61	
		943 61
†To amount of Superintendent of Streets' bills for the year 1866,	3,981 05	
		3,981 05
<i>Amount carried forward</i> ,		\$65,125 51

*\$829.52 was for fuel, and \$114.09 was for taking charge of heating.

†Of the Superintendent of Streets' bills, the most of it was for fuel.

<i>Amount brought forward</i> ,.....	\$65,125 51	
*To amount of Superintendent of Public Buildings' bills, for the year 1866,.....	1,272 80	
	<hr/>	1,272 80
Whole expenditure for 1866,.....		66,398 31
Balance undrawn, January 1, 1867,.....		15,663 46
		<hr/>
		<u>\$82,061 77</u>

*Of the Superintendent of Public Buildings' bills, \$920.46 was for building fires.

SCHOOL HOUSES.

Balance undrawn, January 1, 1866,.....	\$ 593 85	
Appropriated and assessed in 1866,.....	4,000 00	
	<u> </u>	\$4,593 85

R E C E I P T S :

*Received into the Treasury, from various sources,	562 09	
†Received from the Appropriation for Fire Department, for School House and Land on Middle street, for a Double Engine House,	1,500 00	
†Received from the Appropriation for Lighting Streets and Public Buildings, for repairing lanterns and for glass,.....	116 50	
†Received from the Appropriation for Roads and Bridges, for lumber and nails,.....	25 76	
†Received from the Appropriation for Fire Department, for glass, joist and picks,.....	11 51	
†Received from the Appropriation for Paupers, for chestnut posts,.....	2 88	
	<u> </u>	2,218 74
		<u><u>\$6,812 59</u></u>

E X P E N D I T U R E S .

Paid for SUNDRIES:—

To Merrimack Manufacturing Company, rent School House No. 12,.....	\$ 94 00
H. & A. Whitney, lumber,.....	273 97
A. L. Brooks, lumber,.....	288 89
	<u> </u>
<i>Amount carried forward,.....</i>	\$656 86

*See pages 7 and 8.

†See expenditures for those Appropriations.

Amount brought forward,.....\$656 86

Paid for SUNDRIES:

To Horace Howard, lime and cement,.....	9 05
T. O. Allen, lumber,.....	7 00
Otis Adams, Jr., chestnut posts,.....	53 70
L. G. Howe, for use of horse and wagon,....	117 38
LeRoy S. Kimball, cleaning school house,...	1 00
C. B. Coburn & Co., glass, packing, putty, fire-bricks, oil, hemp lines, brimstone, alco- hol, brushes, &c.,.....	202 90
Fielding and Bartlett, hardware,.....	30 47
Jacob Rogers, hardware,.....	18 62
Jacob Rogers & Co., hardware,.....	71 21
Alexander R. Esty, making sketches, plans and surveys for remodeling High School House,.....	330 00
J. B. Fielding, painting, paint, putty, glass, labor, &c.,.....	22 24
J. B. Quimby, painting, paint and labor,....	60 42
Abner Kittredge, painting, labor, &c.,.....	268 33
Geo. N. Osgood, painting, graining and labor,.	20 47
Samuel Farson, painting,.....	14 00
Pierce & Webster, paint and labor,.....	12 10
Nathan Emerson, painting,.....	10 00
N. W. Morrill, painting,.....	1 50
William Waugh, slating and repairing roofs,.	87 23
Robert Goulding, slating, repairing roofs, &c.,	64 96
R. P. Davis, zine, repairing roofs and light- ning rods,.....	15 61
Elbridge Gerry, repairing lightning rods,...	6 28
William E. Livingston, cement and sand,....	12 78
H. A. Hildreth, wire cloth,.....	2 12
John Butcher, iron and steel,.....	14 82
P. O'Connell, iron-work,.....	1 93
O'Connell & Stinson, iron-work,.....	51 21
H. P. Clough, iron-work,.....	6 70
American Bolt Company, for bolt,.....	50
Cole & Nichols, castings,.....	72 22
Josiah Gates, for leather straps,.....	1 37
Fletcher & Mansur, brimstone,.....	80
Runels, Clough & Co., stone and labor,.....	51 69
George N. Osgood, painting two School Hous- es on Adams street,.....	107 80
Luther Kittredge, stone and labor,.....	177 53
Sydney Davis, mason-work,.....	5 60
John L. Moulton, mason-work,.....	13 00
Read & Frye, cement, lime and labor, &c.,...	88 30

Amount carried forward,..... \$2,689 70

Amount brought forward,..... \$2,689 70

Paid for SUNDRIES:—

To Crosby & Drown, whitewashing, cement, lime, pipe, &c.,.....	253 38	
D. M. Prescott, whitewashing, labor, &c.,...	273 49	
M. D. L. Sherman, mason-work,.....	11 65	
Abram Page, whitewashing,.....	218 00	
Samuel Page, whitewashing,.....	142 00	
T. A. Sanborn, whitewashing,.....	172 40	
J. G. Peabody, windows, &c.,.....	626 05	
M. C. Pratt, fence-capping, blinds,sash, boards, &c.,	107 28	
	<hr/>	4,493 95
To amount of Superintendent of Public Build- ings' bills, for the year,.....	886 86	
	<hr/>	886 86
To amount of Superintendent of Streets' bills, for the year,.....	115 09	
	<hr/>	115 09
		<hr/>
Whole expenditure for the year,.....		5,495 90
Balance undrawn, January 1, 1867,.....		1,316 69
		<hr/>
		<u>\$6,812 59</u>

ROADS AND BRIDGES.

Balance undrawn, January 1, 1866,.....	\$3,544 00	
Appropriated and assessed in 1866,.....	25,000 00	
	<u> </u>	\$28,544 00
Transferred from Permanent Loans,.....	2,424 08	
	<u> </u>	2,424 08
		<u> </u>
		\$30,968 08

R E C E I P T S.

Received for SIDEWALK ASSESSMENTS,
MATERIALS and other STREET AC-
COUNTS:—

IN JANUARY.

Of Charles Hubbard, for coal,.....	50 15	
S. T. Manahan, for street-scrapings,.....	2 25	
Gilbert Hamblett, for sidewalk assessment on Ford street,.....	29 88	
Daniel Lovejoy, for stone,.....	3 40	
W. S. Bennett, for street-scrapings,.....	6 00	
H. M. Hooke, for street-scrapings,.....	27 75	
T. J. Coburn, for street-scrapings,.....	5 25	
James Kent, for stone and teaming,.....	3 50	
John Nesmith, for street scrapings,.....	48 00	
George W. Norris, for coal,.....	29 59	
Cyrus H. Latham, for coal,.....	30 93	
S. M. Patterson, for coal,.....	15 28	
Samuel Farson, for street-scrapings,.....	18 75	
H. B. Shattuck, for street-scrapings,.....	3 75	
J. B. French, for street-scrapings,.....	6 50	
	<u> </u>	
<i>Amounts carried forward,.....</i>	\$280 98	\$30,968 08

Amounts brought forward,..... \$280 98 \$30,963 08

Received for SIDEWALK ASSESSMENTS,
MATERIALS, and other STREET AC-
COUNTS :—

Of B. F. Butler, for street-scrapings,.....	6 00	
J. B. Fielding, for street-scrapings,.....	3 00	
Francis Jewett, for street-scrapings and loam,	11 25	
C. H. Latham, for street-scrapings,.....	75	
	<hr/>	301 98

IN FEBRUARY.

Of Luther Richards, for street-scrapings,.....	3 00	
Daniel Swan, for street-scrapings,.....	10 50	
Levi Brown, for coal,.....	20 42	
John A. Buttrick, for street-scrapings,.....	4 50	
Artemas S. Young, for coal,.....	15 58	
	<hr/>	54 00

IN MARCH.

Of B. L. Googins, for coal,.....	15 95	
Town of Dracut, for gravel,.....	1 00	
Hugh McEvoy, for street-scrapings,.....	1 50	
A. G. Hodgman, for overcharge for repairing cart-wheel,.....	3 00	
Town of Dracut, for one-quarter of Gardner K. Eastman's bill, relating to Central Bridge,.....	10 31	
Worthen Street Baptist Church, for labor, sand and brick,.....	13 44	
Wilder Bennett, for old lumber and street- scrappings,.....	22 50	
	<hr/>	67 70

IN APRIL.

Of Wilder Bennett, for old lumber and wood,...	15 14	
H. R. Barker & Co., for labor and lighting on streets,.....	66 72	
J. J. Sanborn, for pasture in Dracut in 1865,	12 00	
	<hr/>	93 86

IN MAY.

Of Smith Adams, for street-scrappings,.....	3 00	
John H. McAlvin, for coal,.....	10 90	
	<hr/>	13 90

Amount carried forward,.....\$31,499 52

Amount brought forward,.....\$31,499 52
 Received for SIDEWALK ASSESSMENTS,
 MATERIALS, and other STREET AC-
 COUNTS:

IN JUNE.

Of William Brown, for street-scrapings,.....	10 50	
	<u> </u>	10 50

IN AUGUST.

Of Owen McCoster, for wood,.....	4 50	
	<u> </u>	4 50

IN SEPTEMBER.

Of J. W. Bennett, for gravel,.....	31 60	
John O'Conner, for stone,.....	2 00	
S. G. Hallowell, for street-scrapings,.....	2 25	
Franklin Morse, for street-scrapings,.....	9 00	
C. K. Hood, for street-scrapings,.....	3 75	
John E. Downs, for use of team,.....	2 00	
Sager Ashworth, for street-scrapings,.....	4 50	
T. G. Gerrish, for coal,.....	69 46	
Jonathan Johnson, for coal,.....	60 58	
A. J. Phipps, for coal,.....	101 20	
J. G. Peabody, for coal,.....	46 41	
J. R. Southwick, for coal,.....	21 46	
G. A. Gerry, for coal,.....	21 07	
B. L. Googins, for coal,.....	22 02	
Luther Richards, for coal,.....	114 15	
Calvin Philbrick, for coal,.....	21 23	
C. C. Hight, for coal,.....	10 28	
R. W. Baker, for coal,.....	35 60	
Sydney Davis, for coal,.....	22 65	
L. G. Howe, for coal,.....	43 74	
J. H. McAlvin, for coal,.....	55 96	
Josiah Gates, for coal,.....	459 11	
	<u> </u>	1,160 02

IN OCTOBER.

Of Luther Richards, for mortar stone, wood, team- ing, &c.,.....	60 00	
W. L. Wallis, for street-scrapings,.....	3 00	
Boston & Lowell Railroad Co., for labor,....	11 79	
	<u> </u>	74 79

Amount carried forward,.....\$32,749 33

Amount brought forward,.....\$32,749 33

Received for SIDEWALK ASSESSMENTS,
MATERIALS, and other STREET AC-
COUNTS:—

IN NOVEMBER.

Of James Howard, for manure,.....	15 00	
Luther Richards, for stone and labor,.....	40 00	
Enoch S. Rand, for brick,.....	6 46	
David Perham, for gravel,.....	3 00	
Amos S. Brown, for gravel,.....	2 00	
William H. Anderson, for sidewalk assess- ment on Favor street,.....	98 81	
	<hr/>	165 27

IN DECEMBER.

Of A. W. Bailey, for mortar-stone,.....	37 50	
Proprietors of Locks and Canals on Merrimack River, for sidewalk assessment on Wor- then street,.....	144 70	
Sisters of Charity, for coal,.....	5 50	
W. E. Livingston, for mortar-stone,.....	174 37	
Luther Richards, for brick, labor, wood, plank and street-scrapings,.....	132 09	
Town of Dracut, for repairs on Pawtucket Bridge,.....	21 35	
G. W. Shattuck, for edgestone and brick,...	120 35	
George Green, for labor, street-scrapings, brick, sand and cinders,.....	58 10	
Daniel Lovejoy, for mortar-stone,.....	40 00	
S. G. Mack, labor, brick and cinders,.....	21 00	
J. M. Howe, for chestnut and pine-boards,..	5 00	
A. B. Richardson, for labor, use of team edge- stone and brick,.....	46 13	
George Gardner, for coal,.....	34 35	
E. M. Sargent, for horse,.....	150 00	
Lowell Horse Railroad Co., for labor and iron,	29 90	
W. H. Wiggin, for labor, brick, cinders and sand,	11 95	
	<hr/>	1,032 29
		<hr/>
		<u>\$33,946 89</u>

EXPENDITURES.

Paid for LABOR:—

In January,	\$1,085 09	
February,	747 32	
March,	970 78	
April,	1,063 26	
May,	1,362 13	
June,	1,805 03	
July,	1,785 63	
August,	1,834 99	
September,	1,764 24	
October,	1,807 54	
November,	1,598 91	
December,	922 17	
	<u>16,747 19</u>	

Paid for HAY, GRAIN, &c.:—

To William E. Livingston, grain and meal,	467 01	
Samuel N. Wood, grain and meal,	623 69	
Lamson, Rogers & Co., grain and meal,	594 89	
A. L. Waite & Co., oats,	7 80	
Calvin Webster, potatoes,	1 95	
Luther Richards, hay and straw,	66 00	
William A. Giles, straw,	22 83	
Josiah Gates, straw,	21 67	
Hiram Spaulding, straw,	12 75	
John Pierce, straw,	12 58	
Sydney Davis, straw,	7 54	
Appropriation for Commons, for grass, (North Common,)	100 00	
	<u>1,938 76</u>	

Paid for LUMBER, LIME, STONE, BRICK,
CEMENT, &c.:—

To H. & A. Whitney, lumber,	82 03	
A. L. Brooks, lumber,	129 55	
H. C. & J. F. Howe, lumber,	230 85	
George W. Saunders, lumber,	994 25	
Norcross & Saunders, lumber, iron spikes & rails,	56 15	
M. C. Pratt, lumber, sawing, &c.,	14 78	
Runels, Clough, & Co., stone, &c.,	457 16	
Blodgett, Reed & Pease, stone-work,	9 58	
Blodgett & Reed, stone-work,	24 38	
William E. Livingston, cement and brick, ...	134 80	
George Way, brick,	277 50	
Boston & Lowell and Nashua & Lowell Rail- road Companies, for freight on brick,	52 50	
	<u>\$2,463 58</u>	

Amount carried forward, \$21,149 53

Amount brought forward,.....\$21,149 53

Paid for FUEL:—

To J. J. Conner & Co., for coal.....	3,997 04	
Boylston Fire and Marine Insurance Compa- ny, insurance on the above coal,.....	31 00	
Boston & Lowell and Nashua & Lowell Rail- road Companies, for freight on the above coal, from Salem,.....	1,003 00	
Jacob Green, for freight on the above coal from Philadelphia to Salem,.....	1,201 75	
Jacob Green, for one day demurrage on 437 tons of the above coal,.....	43 70	
T. J. Griggs, for freight on the above coal from Philadelphia to Salem,.....	563 56	
W. P. Phillips, for weighing the above coal,.	31 65	
Boston & Lowell Telegraph Co., for telegram relating to the above coal,.....	92	
William E. Livingston, for coal,.....	8 40	
W. P. Phillips, for weighing coal,.....	9 45	
Seth Gage, for wood,.....	1,674 14	
Moody Hobbs, for measuring wood,.....	6 00	
	<hr/>	8,575 61

**Paid for BLACKSMITH WORK, REPAIR-
ING CARRIAGES, HARNESES, &c.:**

To Joseph Stevens, shoeing, &c.,.....	30 95	
John T. Lee, shoeing, &c.,.....	179 03	
James Crawford, shoeing, &c.,.....	25 33	
A. H. & J. H. Abbott, shoeing, &c.,.....	18 62	
P. O'Connell, shoeing, &c.,.....	3 15	
O'Connell & Stinson, shoeing, sharpening picks, &c.,.....	9 79	
S. Griffin, shoeing,.....	40	
Converse Nichols, shoeing, repairing tools, &c.,	8 95	
H. P. Clough, shoeing, sharpening picks, drills, &c.,.....	12 10	
Holt & Bergeron, shoeing, repairing carriages, sharpening picks, &c.,.....	407 44	
William L. Swett, repairing carriages, &c.,...	109 86	
Samuel Convers, repairing wagons, carts, sleds, &c.,.....	193 67	
A. G. Hodgman, repairing carts, &c.,.....	19 26	
Joel Jenkins, repairing carts, &c.,.....	163 79	
J. B. Eaton, repairing, &c.,.....	16 37	
Wm. & L. McFarlin, sled-runners and plank.	16 50	
L. G. Howe, cash paid out for repairing hand- cart,.....	5 00	
Luke C. Dodge, blankets,.....	13 75	

Amounts carried forward,..... \$1,233 99 \$29,725 14

<i>Amounts brought forward,.....</i>	\$1,233 99	\$29,725 14
Paid for BLACKSMITH WORK, REPAIR- ING CARRIAGES, HARNESSSES, &c.:		
To J. A. Brabrook, repairing harnesses, &c.,....	7 65	
S. L. Butman, harnesses, repairing harnesses, &c.,	276 15	
John Butcher, iron, steel, &c., for tools,.....	77 04	
American Bolt Co., crank for stone-crusher,..	56 50	
Lowell Machine Shop, repairs on stone crusher,	150 54	
Lane & Nowell, repairing stone-crusher, &c.,	199 94	
Daniel Lovejoy, iron, surveyor's poles, grind- ing hay-cutter, repairing stone-crusher, labor, &c.,.....	123 85	
H. R. Barker & Co., repairing stone-crusher,	18 94	
	<hr/>	2,144 60
Paid SUPERINTENDENT OF STREETS and CIVIL ENGINEER:—		
To Wilder Bennett, Superintendent of Streets, (salary,).....	400 00	
Luther Richards, Superintendent of Streets, (salary,).....	800 00	
Wilder Bennett, for services assisting Super- intendent of Streets, (after resignation,)	69 04	
Richard W. Baker, Civil Engineer, (salary,)	700 00	
	<hr/>	1,969 04
Paid for LAND and LEDGE:—		
To Phineas Whiting, for 27,952 $\frac{55}{100}$ feet of land on the east side of Fletcher street, as per Deed dated May 5, 1866, at 7 cents per square foot,.....	1,956 68	
Middlesex Registry of Deeds, Northern Dis- trict, for recording deed of the above land,	75	
	<hr/>	1,957 43
Paid for DAMAGES, EXECUTION, RESO- LUTION and ORDERS, &c.:—		
To Sarah Brown, execution,.....	643 74	
Mary Sheridan, compromised case,.....	269 51	
Hugh McEvoy, for land to widen Broadway, (as per resolution,).....	105 00	
Henry Emery, damage to wagon, (per order,)	50 00	
Isaac Peabody, per order,.....	50 00	
	<hr/>	1,118 25
Paid for SUNDRIES:—		
To Emerson & Porter, for horse,.....	500 00	
Boston & Lowell and Nashua & Lowell Rail- road Companies, freight on the above horse,	3 00	
<i>Amounts carried forward,.....</i>	\$503 00	\$36,914 46

Amounts brought forward,..... \$503 00 \$36,914 46

Paid for SUNDRIES:

To Luther Richards, for expenses incurred in purchasing the above horse,.....	3 70
C. B. Coburn & Co., sperm, lard and kerosine oil, cod-lines, manila rope, hemp-cord, sponge, sulphur, paint, &c.,.....	66 98
Jacob Rogers, hardware,.....	72
Jacob Rogers & Co., hardware,.....	118 78
Fielding & Bartlett, hardware,.....	92 91
Chase, Sargent & Shattuck, hardware,.....	40 80
Fletcher & Mansur, powder, fuse, baskets, &c.,	100 10
Buttrick & Co., soap, salt, saltpetere, pails, sulphur, matches, &c ,.....	15 10
Mutual Benefit Society, kerosine oil,.....	1 20
John McCarty, salt,.....	45
Henry S. Orange, lanterns,.....	5 88
J. B. Fielding, axle-grease, lanterns, glasses, paint, varnish, benzine, oil, labor, &c.,..	85 08
N. W. Morrill, painting carts.....	14 07
George N. Osgood painting signs,.....	1 00
Cushing & Mack, repairing fence, pipe, eans, castings, &c.,.....	18 95
H. H. Wilder & Co., pipe,.....	1 30
Luther Richards, for ladder,.....	3 68
Amos Colby, pumps,.....	47 63
Town of Draeut, repairs on Pawtucket Bridge,.	140 37
Trumbel & Haskell, filing saws, &c.,.....	3 45
Hutchins & Co., watering street,.....	10 00
Furnald & Rollins, lumber, labor, nails, &c.,	50 96
John Pettingell, sledge handles and pins,....	1 16
M. C. Pratt, sawing and planing,.....	2 92
Eliphalet Hills, turning paving mallets,.....	2 00
M. D. L. Sherman, mason work,.....	37 12
L. J. Richards, windlass-jack, and moving stone-crusher,.....	19 20
J. E. Conant, use of wagon,.....	2 50
Wilder Bennett, sand screen,.....	9 00
Smith Adams, for oil,.....	4 00
Josiah Gates, belting, &c.,.....	12 08
A. K. Lynch, numbering Engineers' measuring poles,.....	2 50
George Woods, hammer handles,.....	4 00
John Stearns, for besom,.....	8 16
Calvin Webster, for besom,.....	4 96
Robert Wood, medical attendance and medicine for horses,.....	15 00

Amounts carried forward,..... \$1,450 72 \$36,914 46

<i>Amounts brought forward,</i>	\$1,450 72	\$36,914 46
Paid for SUNDRIES:—		
To Charles Cogswell, attendance and medicine for horses,.....	7 75	
Carleton & Hovey, tincture arnica, sugar lead, &c.,.....	4 05	
J. R. Hayes, liniment,.....	1 00	
Town of Dracut, high-way tax for 1865,....	1 00	
Joshua Merrill, stationery,.....	14 50	
B. C. Sargeant, stationery,.....	2 50	
F. P. Coggeshall, stationery,.....	2 55	
Appropriation for Lighting Streets and Public Buildings, for horse,.....	240 00	
Appropriation for Paupers, labor of teams,..	158 50	
Appropriation for School Houses, lumber and nails,.....	25 76	
Appropriation for Commons, fence boards,...	24 30	
	<hr/>	1,932 63
To amount of Superintendent of Public Buildings' bills for the year,.....	379 49	
	<hr/>	379 49
		<hr/>
		39,226 58
Deduct amount of Superintendent of Streets' bills, charged to the following Appropriations, or Accounts, viz.:		
For Schools,.....	3,981 05	
School Houses,.....	115 09	
Reserved Fund,.....	2,126 84	
Paupers,.....	1,493 65	
Police,.....	384 10	
Fire Department,.....	961 32	
Sewers and Drains,.....	516 16	
Commons,.....	838 98	
Lighting Streets and Public Buildings,.....	310 27	
	<hr/>	10,727 46
Making the actual expenditure for Roads and Bridges in 1866,.....		
		28,499 12
Balance undrawn, January 1, 1867,.....		5,447 77
		<hr/>
		<u>\$33,946 89</u>

RESERVED FUND.

Balance undrawn, January 1, 1866,.....	\$8,733 90	
	<u> </u>	\$8,733 90

R E C E I P T S :

* Received into the Treasury, from various sources,	12,425 57	
	<u> </u>	12,425 57
† Received from appropriation for Schools, for heating High and Green School Houses, .	943 61	
	<u> </u>	943 61
		<u><u>\$22,103 08</u></u>

E X P E N D I T U R E S .

Paid for LABOR:—

To John Biggs,.....	721 13
R. G. Crowell,.....	689 00
LeRoy S. Kimball,.....	55 26
G. P. McCormick,.....	112 00
D. L. Page,.....	107 25
A. N. Reynolds,.....	413 37
Felix Rodgers,.....	398 24
A. M. Spaulding,.....	199 50
Addison Spaulding,.....	150 15
T. M. Turner,.....	269 39
Samuel Thorne,.....	150 00
Osborn Merrill,.....	22 50
	<u> </u>
<i>Amount carried forward,.....</i>	\$3,287 79

*See pages 5, 6 and 7.

†See expenditures for Schools, page 25.

Amount brought forward..... \$3,287 79

Paid for LABOR:—

To Henry Sweeny.....	24 00
Isaiah Boudreau.....	126 38
Daniel G. Harrington.....	124 38
Charles Richardson.....	10 98
G. A. L. Shaw.....	3 00
M. W. Rice.....	12 50
E. W. Bartlett.....	68 07
Ira Caverly.....	72 50
William Flagg.....	2 25
L. P. Little.....	216 87
John E. Wills.....	85 00
C. E. Bailey.....	35 25
S. A. Chase.....	7 75
G. H. Conly.....	6 50
Edward Ellingwood.....	4 75
A. B. Heywood.....	1 50
G. S. Mansfield.....	57 00
Ethan Spaulding.....	108 75
Daniel Reynolds.....	55 12
John McAleer.....	498 50
Warren Fletcher, Janitor Huntington Hall..	336 00
John Wheeler, do. do. do.	297 00
John Powers, do. do. do.	3 00

5,439 8

Paid TAX ABATEMENTS:—(On Assessors' Orders)

To Gilman Kimball, on tax of 1865.....	32 85
H. M. Hooke, on tax of 1865.....	32 85
W. S. Bennett, on tax of 1866.....	13 80
S. M. Bell, on tax of 1866.....	5 52
Roland Lyman, on tax of 1866.....	2 76
J. W. Daniels, on tax of 1866.....	1 38
Elias Cheney, on tax of 1866.....	2 00
Bernard O'Neill, on tax of 1866.....	2 00

93 1

Paid for SUNDRIES:—

To Boston & Lowell and Nashua & Lowell Railroad Corporations, for ground rent on Merrimack and Dutton streets, occupied by Huntington and Jackson Halls, as per lease from January 1, 1866, to 1867,...	450 00
Boston & Lowell and Nashua & Lowell Railroad Companies, for 100 passenger tickets,	75 00
J. E. Short, for 50 railroad passenger tickets.	37 50

Amounts carried forward..... \$562 50 \$5,533 00

<i>Amounts brought forward</i> ,	\$562 50	\$5,533 00
Paid for SUNDRIES:—		
To Lowell Post Office, for postage stamps,	58 00	
Calvin Philbrick, for cash paid out for postage stamps,	37 59	
Calvin Philbrick, for cash paid out for cleaning, labor, expressage, matches, soap, waste yarn, &c.,	51 34	
Thomas G. Gerrish, Collector of Taxes, for taxes assessed upon sundry persons on Real Estate in 1865, the same having been deeded to the City for taxes of previous years,	10 87	
Thomas G. Gerrish, Collector of Taxes, for taxes assessed upon sundry persons on Real Estate in 1866, the same having been deeded to the City for taxes of previous years,	9 85	
Middlesex Registry of Deeds, Northern District, for recording affidavit of tax notice,	1 50	
James O'Neil, for amount paid at auction, June 30, 1866, for land taxed to John B. Chase, the same having been assessed to Samuel Farson, and the tax paid by him for tax of 1866, together with the intervening costs and charges,	10 11	
Michael Buckley, reimbursement of tax for the year 1865, with interest, (per order of City Council,)	13 37	
Hutchins & Co., sprinkling street,	11 00	
Weare Clifford, cleansing carpet,	4 80	
Commonwealth of Massachusetts, on account of illegal bounty paid William O'Brien, 33d Infantry,	100 00	
George E. Pinkham, for examining persons, under the act of the Legislature, entitled "An Act to provide State Aid for Disabled Soldiers and Sailors and their Families, and for the Families of the Slain," "Approved May 29, 1866."	122 00	
Wm. & L. McFarlin, ice for 1866,	9 00	
S. R. Fletcher, boxes for return of votes at elections,	9 00	
Fairbanks, Brown & Co., difference in exchange in City scales,	220 00	
John H. McAlvin, fees for recording assignments of wages,	2 00	
<i>Amounts carried forward</i> ,	\$1,235 93	\$5,533 00

<i>Amount brought forward</i>	\$1,235 13	\$1,235 00
<i>Paid for SUPPLIES —</i>		
Dr John H. Macdonald, cash paid out for postage stamps, express, etc.....	16 50	
B. C. Sargeant, blank books, stationery, etc.....	201 24	
Joshua Merrill, stationery, etc.....	175 72	
E. E. Coggeshall, stationery.....	10 17	
S. B. Eason, stationery.....	4 00	
Abel Whiting, ink.....	4 00	
A. B. Wilcox, pencils.....	2 00	
S. B. Eason, blank note register from November 1864 to November 1865.....	1 50	
James Farley, repairing water syphonizer.....	50	
F. & E. Bailey, thermometer.....	1 00	
Henry Allen, thermometer.....	1 00	
Quinton & Hays, brush.....	50	
Bennett & Emery, for freight on boxes and bundles.....	2 50	
Sargeant & Co.'s Express, freight on bundles.....	1 00	
Oriskany M. Merrill, collecting number of births in 1864.....	14 00	
J. B. W. Coburn, collecting number of births in 1865.....	11 00	
Joel Powers, collecting number of births in 1865.....	5 40	
William Lamson, Jr., taking census.....	34 00	
H. W. Presser, taking census.....	30 00	
James Winchell, taking census.....	30 00	
J. B. W. Coburn, taking census.....	11 00	
Joel Powers, taking census.....	33 00	
E. G. Crosby, taking census.....	34 00	
S. B. Sargeant, taking census.....	31 00	
Oriskany M. Merrill, examining tax lists from 1861 to 1865 inclusive.....	90 00	
William Lamson, Jr., examining tax lists from 1861 to 1865 inclusive.....	54 00	
James Winchell, examining tax lists from 1861 to 1865 inclusive.....	30 00	
J. B. W. Coburn, examining tax lists from 1861 to 1865 inclusive.....	24 00	
C. B. Coburn & Co., twine and brushes.....	1 50	
S. B. Fielming, soap and oil.....	1 00	
Mr. A. George, hardware, tin, glass-ware, etc.....	1 12	
Henry C. George, water-pug, glass-ware and hardware.....	1 00	
Samuel Sawyer, repairing harness.....	37 24	
Joel Perkins, repairing harness.....	5 00	
<i>Amount carried forward</i>	\$2,122 07	\$2,122 00

Amounts brought forward..... \$1,195 07 \$1,195 07

Paid for SUPPLIES:—

To Morse & Gage, horse and carriages for messenger.....	7 00
G. W. Morris, horse and carriages for messenger.....	2 50
John Hawley, horse and carriages for messenger and to convey Isaac Peabody to his house.....	2 50
J. E. Conant, horse and carriage returning in taking the census.....	1 50
J. E. Conant, for barometer.....	5 00
Morse & Gage, carriage-hire for party in case of Eben Johnson ex. the City.....	4 00
George Thacher, cleaning clocks.....	4 75
W. H. Dyer & Co., printer.....	2 50
S. B. Brickett, for binding.....	2 00
Rowland Marvel, preparing real estate for sale, describing the lots, and posting notices of the sale on the lots, for non-payment of taxes for 1864.....	10 00
Charles B. Hinckell, taking census.....	20 00
J. G. Peabody, for cash paid for stamps for indentures.....	2 00
L. J. Richards, moving library-guide in Monument Square for the purpose of placing the "Statue of Victory".....	15 00
Warren Fletcher, cash paid out for cleaning Huntington Hall.....	4 50
C. M. Marvel, cash paid express, and for postage stamps.....	6 20
Alfred Gilman, repairing flags.....	4 00
James Rogers, hardware.....	2 91
Chase, Sargent & Shawmut, hardware.....	1 50
Adams, North & Co., leather duster.....	2 50
Stone & Huse, printing State Aid notices, &c.....	2 50
E. L. Davis, distributing Mayor's address..	6 00
E. L. Davis, posting notices.....	14 75
John Harrigan, posting notices.....	6 25
W. S. Simons, posting notices.....	2 60

2,458 23

Paid for BUILDING FENCE TO ENCLOSE THE OLD BURYING GROUND, (Corner of Middlesex and School Streets.)—

To M. D. L. Sherman, for stone, labor, &c.....	2,424 25
Emels, Clough & Co., stone posts and rapping.....	164 12
Cushing & Mack, for iron gates.....	125 00
S. M. Morry, pattern, castings, painting, &c.....	26 75

2,739 12

Amount carried forward..... \$4,934 15

Amount brought forward,.....\$11,704 15

PAID EXPENSES RELATING TO INTRO-
DUCING WATER INTO THE CITY
OF LOWELL:—

To F. L. Rice, for professional services in pre- paring plans and estimates, &c.....	258 15	
A. A. Hayes, analyzing water of "Merrimaek River,".....	100 00	
A. A. Hayes, analyzing water of "Beaver Brook,".....	15 00	
A. A. Hayes, analyzing third sample water..	15 00	
Henry Emery, dinners for Engineers.....	1 50	
Morse & Gage, horse and carriage to view localities.....	6 00	
J. G. Peabody, cash paid out for expenses of Committee to visit Charlestown Water Works.....	2 40	
Stone & Huse, printing report of Committee on water-works.....	320 37	
Joshua Merrill, binding reports of Committee,	25 00	
Joel Powers, distributing reports of the Com- mittee.....	11 25	
E. L. Davis, distributing reports of the Com- mittee,.....	6 00	
		<hr/> 760 67

FOURTH OF JULY.—PAID FOR SALUTES,
&c.. THE NINETIETH ANNIVERSARY
OF AMERICAN INDEPENDENCE:—

To Fletcher & Mansur, powder.....	\$57 50	
Alfred Gilman, making cartridges,....	18 00	
J. A. Bratbrook, wool skin.....	3 00	
C. B. Coburn & Co., spirits turpentine.....	1 10	
R. G. Crowell, firing National Salutes, (108 guns).....	50 00	
John McLaughlin, ringing bell, St. Patrick's Church.....	2 00	
George W. Eastman, ringing bell, Franklin School House.....	67	
		<hr/> 142 27

PAID FOR NATIONAL SALUTE ON THE
ANNIVERSARY OF THE EMANCI-
PATION PROCLAMATION:—

To Fletcher & Mansur, powder.....	29 00	
Alfred Gilman, making cartridges.....	5 33	
R. G. Crowell, firing National Salute, (56 guns.)	9 00	
		<hr/> 43 33

Amount carried forward,.....\$12,650 42

Amount brought forward,.....\$12,650 42

Paid for EXPENSES OF LAWSUITS, FEES
OF WITNESSES, &c.:—

To Butler & Webster, professional services,....	915 00	
George C. Wilde, City of Lowell <i>vs.</i> H. K. Oliver, (for copies for full court,) manda- mus writ,.....	21 00	
George M. Brooks, Auditor's fees in suit of City of Lowell <i>vs.</i> Otis Allen,.....	50 00	
J. G. Peabody, cash paid out to summon wit- nesses in suits,.....	8 10	
Andrew F. Jewett, professional services, cash paid out for summoning witnesses, and Clerk of the Courts for term fees, &c.,...	64 56	
	<hr/>	1,058 66

Paid MEASURERS OF WOOD AND BARK
AND SUPERINTENDENTS OF CITY
SCALES:—

To James Howard, (salary,).....	\$292 05	
Sydney Davis, (salary,).....	507 95	
	<hr/>	800 00

Paid MILITIA BOUNTIES:—

To sundry persons, militia bounty for May Inspection, (in part,) for 1862, per order,.....	5 00	
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To sundry persons, militia bounty of 1866, per
order,

May Inspection, Company C.,.....	\$117 50	
“ “ “ D.,.....	111 50	
“ “ “ G.,.....	95 50	

324 50

Fall Encampment, Company C.,...	372 00	
“ “ “ D.,...	409 50	
“ “ “ G.,...	259 50	
“ “ “ H.,...	439 50	

1,480 50

Monthly Drill, Co., D.,.....	44 50	
“ “ “ G.,.....	76 50	
“ “ “ H.,.....	165 00	

286 00

2,096 00

To amount of Superintendent of Streets' bills
for the year,.....

2,126 84

2,126 84

Amount carried forward,.....\$18,731 92

<i>Amount brought forward</i> ,.....		\$18,731 92
Deduct amount of Superintendent of Public Buildings' bills, charged to the following appropriations, viz. :—		
For Schools,.....	1,272 80	
School Houses,.....	886 86	
Roads and Bridges,.....	379 49	
Paupers,	145 91	
Fire Department,.....	1,054 07	
Sewers and Drains,.....	2 50	
Commons,	50 55	
Lighting Streets and Public Buildings,.	23 88	
Repairs of Public Buildings,.....	484 53	
	<hr/>	4,300 59
Making the actual expenditure for the year 1866,		14,431 33
Balance undrawn, January 1, 1867,.....		7,671 75
		<hr/>
		<u>\$22,103 08</u>

RELIEF OF SOLDIERS' FAMILIES.

R E C E I P T S.

* Received into the Treasury, from various sources, in 1866,.....	\$62,162 47	
	<u>5,597 00</u>	<u>\$62,162 47</u>

E X P E N D I T U R E S.

Amount expended for STATE AID FOR SUPPORT AND RELIEF OF FAMILIES OF THOSE WHO ARE AND WERE IN THE ACTIVE VOLUNTEER SERVICE OF THE UNITED STATES:—

† Paid on Resolution (State Aid per order of the City Council),.....	5,597 00	5,597 00
Paid SUNDRY EXPENSES:—		
To John F. Fryc, for paying State aid to soldiers' families,.....	120 00	
Town of Dunstable, for State aid to soldiers' families, being a part of the quota of Dunstable, the same having been refunded by the Commonwealth,.....	270 00	390 00
	<u>5,987 00</u>	<u>\$5,987 00</u>
† Making the whole expenditure for the year,...		

* See page 8. † Will be reimbursed by the Commonwealth.

† This account was overdrawn, January 1, 1866,.....	\$68,621 23	
Expenditure in 1866,.....	<u>5,987 00</u>	\$74,608 23
Amount standing to this credit of this account, December 31, 1866,.....	62,162 47	62,162 47
	<u>\$12 445 76</u>	

§ Overdrawn, January 1, 1867,.....

§ See debts due the city for State aid charged to this account.

PAUPERS.

Balance undrawn, January 1, 1866,.....	\$ 1,823 31	
Appropriated and assessed in 1866,.....	10,000 00	
	<u> </u>	\$11,823 31
Transferred from Permanent Loans,.....	3,000 00	
	<u> </u>	3,000 00

RECEIPTS.

© Received into the Treasury from various sources,	2,944 23	
† Received from Appropriation for Roads and Bridges, for labor of teams,.....	158 50	
	<u> </u>	3,102 73
		<u> </u>
		\$17,926 04

EXPENDITURES.

To Lorenzo Phelps, Superintendent of the Alms- house and Farm,.....	975 00	
William A. Lang, Chaplain, and Teacher of Reform School,.....	650 00	
William H. Allen, labor,.....	66 98	
Nicholas Pierce, labor,.....	300 00	
Sidney A. Lamphear, labor,.....	125 00	
George A. Lamphear, labor,.....	211 52	
James E. Doore, labor,.....	52 50	
Alfred W. Lavene, labor,.....	31 00	
Jesse S. Maxfield, labor,.....	15 46	
B. Devine, labor,.....	25 00	
M. R. Daniels, sempstress,.....	201 50	
Susan S. Putney, labor,.....	91 00	
	<u> </u>	\$2,747 96
<i>Amount carried forward,.....</i>		<u> </u>
		\$2,747 96

* See pages 9 and 10.

* See expenditures for Roads and Bridges.

Amount brought forward,.....\$2,747 96

Paid for GROCERIES, GRAIN, MEAT, &c.,

USED AT THE ALMSHOUSE:—

To Nichols & Co., flour,.....	317 00	
A. L. Waite & Co., meats, flour, beans, fish, potatoes, &c.,.....	1,210 96	
Samuel N. Wood, flour, meal, feed, &c.....	894 11	
Lamson, Rogers & Co., meal and feed,.....	61 24	
H. A. & S. A. Coburn, beef and potatoes,...	56 75	
Fletcher & Mansur, groceries,.....	350 07	
A. D. Puffer & Co., groceries,.....	53 20	
C. H. Morse, baskets,.....	1 00	
Selwin Bancroft, groceries,.....	17 00	
J. & J. M. Pearson, groceries,.....	1 76	
Wason, Peirce & Co., molasses,.....	213 88	
Boston & Lowell and Nashua & Lowell Rail- road Companies, freight on molasses,....	5 70	
Sargent & Cotton, fish,.....	20 42	
James Dollard, fish,.....	30 59	
A. N. Osgood & Co., beef,.....	58 59	
Martin Morris, baking and flour,.....	368 00	
Francis Jewett, beef,.....	381 92	
Orlando Blodgett, beef and killing hogs,....	71 51	
A. F. & M. Wright, provisions,.....	97 20	
Rice & Bailey, provisions,.....	225 77	
Blood & Mitchell, beef,.....	91 28	
J. L. Sawtelle, provisions,.....	42 15	
E. S. Hunt, curing hams,.....	4 40	
L. W. Jenness, potatoes and oats,.....	43 00	
Merrill Stevens, potatoes,.....	6 65	
A. B. French & Co., candy and oysters,.....	5 45	
S. D. Billings, lemons, pickles, oranges and fire-works,.....	22 12	
Charles R. Kimball, alcohol, whiskey, tincture arnica, bergamot, foot-balls, wine, fly- paper, mercury, &c.,.....	26 75	
Carleton & Hovey, chloride zinc, ointment, camphor, chamois skin, sponge, poison,&c.,	12 22	
	<hr/>	4,690 69

Paid for GROCERIES, &c., USED OUT OF
THE ALMSHOUSE:—

To City of Charlestown, groceries and coal deliv- ered to George H. Shepard, and for cash paid and coal and wood delivered to Eliza Shaughnessey,.....	25 50	
J. L. Sargent, provisions furnished John Arlen,	2 17	
	<hr/>	27 67

Amount carried forward,.....\$7,466 32

Amount brought forward,.....\$7,466 32

Paid for NURSING AND BOARDING PER-
SONS OUT OF THE ALMSHOUSE,&c.:

To State Lunatic Hospital, (Worcester,).....	1,109 38
State Lunatic Hospital, (Taunton,) for sup- port of Enoch L. Lewis,.....	29 84
State Reform School, (Westborough, for boys,)	60 23
State Industrial School, (Lancaster, for girls,)	131 35
State Nautical School, (for maintenance for boys,).....	60 43
William Bass, for examinations and certifi- cates in insane cases,.....	6 00
J. H. Gilman, examination and certificate in an insane case,.....	2 00
Daniel S. Hoyt, for board of Warren E. Chase,	48 00
Sarah M. Wetherbee, weekly assistance in cash,	48 00
Mary French, weekly assistance in cash,....	46 00
Town of Foxborough, for cash paid for sup- port of Abigail Bradshaw, and funeral expenses,.....	93 86
City of Boston, support of Theodate T. Fer- nald and Justin E. Walker,.....	46 25
Town of Chelmsford, for nursing Mrs. James Willey,.....	1 28
R. F. Clark, for nursing Alice B. Niles,.....	69 00
Hannah L. Rollins, board of Margaret A. Foster,.....	20 00
Ann Lynch, taking care of James Winterbot- tom and wife,.....	12 00
Maria Wightman, boarding and nursing Eliz- abeth Brown and child,.....	20 00
Henry Thomas, taking care of Albert Munson,	18 00
Thomas McCormick, board and attendance of Mrs. Lara,.....	10 00
Charles Going, for board of a sick, destitute lady from the South, (on her way home to the State of Maine,).....	2 50
John Tully, for taking care of Michael McGin- nis (a case of small pox),.....	12 00
Niles I. Donaldson, for taking care of W. G. Cleaves (a small pox case),.....	59 43
Albert M. Mallard, for taking care of W. G. Cleaves (a small pox case),.....	37 30
George E. Pinkham, professional services and medical attendance for Thomas Murphy and Nancy M. Travis,.....	16 75
	<hr/> 1,959 65

Amount carried forward,.....\$9,425 97

Amount brought forward,.....\$9,425 97

Paid for CLOTHING, DRY GOODS, BOOTS,
SHOES, LEATHER, &c. :—

To Charles W. Dodge, dry goods,.....	342 34	
Keyes & Tucker, dry goods,.....	124 74	
J. P. Folsom, dry goods,.....	37 33	
H. Hosford & Co., dry goods,.....	94 00	
Josiah Gates, Leather, &c.,.....	170 03	
W. A. Brown, shoe findings,.....	6 28	
N. M. Wright rubbers,.....	3 00	
Addison Putnam, clothing,.....	48 55	
William P. Brazer, mitts and socks,.....	12 75	
Adams, North & Co., carpeting,.....	48 03	
	<hr/>	887 05

Paid for COFFINS, INTERMENTS, &c. :—

To Terrance Hanover,.....	110 00	
Ansel P. Lesure,.....	24 00	
	<hr/>	134 00

Paid for FUEL :—

To H. A. & S. A. Coburn, for wood,.....	360 00	
	<hr/>	360 00

Paid for SUNDRIES :—

To Calvin Philbrick, cash paid out for feeding and conveyance of paupers,.....	349 80	
Lorenzo Phelps, for cash paid Home for Little Wanderers, postage stamps, labor, nursing and conveyance of paupers, and for sun- dries on pauper account,.....	329 90	
Town of Chelmsford, town, county and state taxes for 1866,.....	34 68	
Town of Chelmsford, highway tax, 1866....	3 06	
Charles W. Dodge, services appraising prop- erty at the Almshouse, and making inven- tory of the same,.....	9 00	
Josiah Gates, services appraising property,..	6 00	
Luke C. Dodge, appraising property,.....	6 00	
Josiah Gates, for hog,.....	37 00	
A. L. Brooks, lumber,.....	67 42	
H. & A. Whitney, lumber,.....	352 77	
Adams Chamberlin, chestnut posts,.....	109 23	
C. B. Coburn & Co., oil, lead, glass, glue, lan- tern, chalk, &c.,.....	84 21	
Stephen Wallace, mason work,.....	187 25	
Crosby & Drown, mason work,.....	31 50	
Fielding & Bartlett, hardware, &c.,.....	122 13	
Jacob Rogers & Co., hardware,.....	9 83	

Amounts carried forward,..... \$1,739 78 \$10,807 02

Amounts brought forward,..... \$1,739 78 \$10,807 02

Paid for SUNDRIES:—

To J. B. Fielding, oil, spirits turpentine, varnish, lead, glue, lantern, axle grease, glass, chimnies, wicks, whiting, &c.,.....	86 83	
Chase, Sargent & Shattuck, hardware,.....	2 25	
John Butcher, iron,.....	6 10	
Union Oil Company, soap stock,.....	62 16	
Boston & Lowell and Nashua & Lowell Rail- road Companies, freight on soap stock,...	2 46	
Samuel Horn & Co., for scraps,.....	63 86	
H. H. Wilder & Co., milk cans, coal hods, stove, iron pipe, &c.,.....	50 14	
J. W. Nash & Co., stoves, milk cans, pans, stove-pipe, repairing stoves, &c.,.....	64 29	
N. J. Wier, & Co., stove, stove-pipe, repairing stoves, kettle, &c.,.....	118 76	
B. C. Sargeant, books and stationery,.....	48 75	
Sylvester Wilkins, books,.....	1 50	
Wm. & L. McFarlin, ice for the year,.....	10 74	
Amos Colby, pump and repairs,.....	13 75	
Joel Jenkins, repairing cart wheels, chains, &c.,	36 87	
J. A. Brabrook, repairing harnesses, &c.,....	13 65	
Samuel Convers, repairing carriages,.....	21 60	
Joseph Stevens, shoeing horses and manure,.	48 75	
John T. Lee, repairing wagon,.....	1 00	
Convers Nichols, shoeing horses,.....	3 25	
N. P. Dadmun, shoeing oxen, &c.,.....	2 17	
Holt & Bergeron, repairing picks,.....	3 00	
John S. Shed, repairing plows,.....	3 90	
William E. Livingston, lime, cement, &c.,...	75 85	
M. C. Pratt, lumber and sawing,.....	67 97	
J. G. Peabody, lumber and labor,.....	81 00	
French & Puffer, spoons,.....	5 06	
Henry S. Orange, crockery, &c.,.....	6 49	
Ira A. Clough, crockery, glass ware, &c.,....	22 51	
George Offutt & Son, repairing sofas,.....	16 50	
Weare Clifford, coloring blankets,.....	6 00	
Isaac Holden, pear trees,.....	23 50	
Charles A. Kimball, services for making re- turns of burials and paupers,.....	5 00	
Moses W. Kidder, execution,.....	22 04	
A. B. French & Co., for supplies,.....	53 02	
J. E. Conant, carriages to the farm,.....	4 00	
		2,799 50
To Amount paid appropriation for School Houses, chestnut posts (for Winterbottom's house),	2 88	
		2 88

Amount carried forward,.....\$13,609 40

<i>Amount brought forward</i> ,.....	\$13,609 40	
To amount of Superintendent of Streets' bills against Paupers for the year,.....	1,493 65	
	<hr/>	1,493 65
To Amount of Superintendent of Public Build- ings' bills for the year,.....	145 91	
	<hr/>	145 91
Whole expenditure for the year,.....	\$15,248 96	
Balance undrawn, January 1, 1867,.....	2,677 08	
	<hr/>	\$17,926 04
	<hr/>	

P O L I C E.

Balance undrawn, January 1, 1866,.....	\$ 863 79	
Appropriated and assessed in 1866,.....	23,000 00	
	<u> </u>	\$23,863 79

R E C E I P T S.

Received into the Treasury from various sources,	3,224 75	
	<u> </u>	3,224 75
		<u><u>\$32,088 54</u></u>

E X P E N D I T U R E S.

Paid Bickford Lang, City Marshal (salary),....	1,500 00	
	<u> </u>	1,500 00
Paid for SERVICES OF POLICE OFFI- CERS:—		
To Levi Brown (Captain of Night Police),.....	993 50	
Squire L. Bailey,.....	148 62	
Theophilus C. Blaisdell,.....	859 60	
Moses D. Barker,.....	842 60	
William Bodge,.....	822 47	
Allen P. Bickford,.....	817 96	
Asa D. Clark (Deputy Marshal),.....	179 50	
William L. Clark,.....	150 87	
John Coleman,.....	855 09	
Michael B. Caswell,.....	791 97	
John Dougherty,.....	856 10	
Alfred Day,.....	850 60	
Harrison H. Fuller,.....	147 37	
	<u> </u>	
Amounts carried forward,.....	\$8,316 25	\$1,500 00

* See pages 10 and 11.

Amounts brought forward,..... \$8,316 25 \$1,500 00

Paid for SERVICES OF POLICE OFFI-
CERS:—

To William P. Farrington,.....	831 34	
David H. Goodhue,.....	852 84	
George W. Hobart,.....	424 10	
Thomas Ingalls,.....	837 60	
Isaac L. Libby,.....	787 60	
William M. Lee,.....	849 48	
Henry Marshall,.....	781 00	
Benjamin G. Mooney,.....	810 25	
Charles H. Runlett,.....	245 37	
Thomas J. Sanborn,.....	151 99	
George W. Sanborn,.....	822 33	
Daniel H. Sinclair,.....	851 72	
James W. Sheffield,.....	779 72	
David S. Spaulding,.....	847 22	
Joseph Upton,.....	848 20	
Almon Libby,.....	166 24	
Abel C. Chase,.....	704 23	
George W. Pullen,.....	616 49	
Emmons T. True,.....	642 34	
Charles P. Bowles, (Deputy Marshal,).....	698 50	
Otis Bullard,.....	596 23	
James E. Webster,.....	541 09	
Augustus B. Foss,.....	239 62	
	<hr/>	23,241 75

Paid POLICE JUSTICE:—

To Nathan Crosby, for services as Police Justice in truant cases,.....	100 00	
	<hr/>	100 00

Paid for TRUANT COMMISSIONER:—

To Jesse Huse, for services,.....	778 75	
	<hr/>	778 75

Paid for SUNDRIES:—

To Charles P. Bowles, for conveyance of prison- ers, &c.,.....	130 60	
Asa D. Clark, conveyance of prisoners, &c.,..	71 97	
Henry Marshall, conveyance of prisoners, &c.,	108 15	
B. G. Mooney, conveyance of prisoners and sundry travelling expenses, &c.,.....	175 98	
Jesse Huse, for cash paid out in pursuit of thief, and conveyance of persons to State and County Institutions,.....	18 68	
	<hr/>	

Amounts carried forward,..... \$505 38 \$25,620 50

<i>Amounts brought forward</i> ,.....	\$505 38	\$25,620 50
Paid for SUNDRIES:		
To Joseph Upton, expense in search of James Riley,.....	10 60	
Levi Brown, expense after Charles B. Carley,.....	4 00	
Andrew F. Jewett, services in the Police Court in trials of Liquor Nuisance cases,.....	400 00	
Lorenzo Phelps, for costs in suit Peter Clarkin <i>et ux. vs. Lorenzo Phelps et al.</i> , as per Resolution,.....	95 00	
G. J. & D. Bradt, crackers,.....	41 50	
Buttrick & Co., crackers, matches, brooms, pails, twine, &c.,.....	32 08	
Samuel Horn & Co., soap,.....	2 00	
Adams, North & Co., cocoa matting,.....	9 13	
Person Noyes, fluid, oil carpet, curtain cord, pitcher, &c.,.....	7 78	
Puffer & Bradley, mattresses, (station house,).....	20 00	
George Thatcher, repairing bell and cleaning clock at police station,.....	2 50	
Richardson & Cutter, repairing lock,.....	25	
H. H. Wilder, repairing water closet,.....	1 00	
H. H. Wilder & Co., furnace pipe, dippers, cleaning furnace and pipes, labor on water closet, &c.,.....	10 60	
Waterbury Button Co., Police coat and vest buttons,.....	60 00	
Calvin Philbrick, cash paid expressage on police buttons,.....	1 15	
Joseph Raynes & Co., repairing clock at police station,.....	1 00	
American Bolt Co., bolts for police station,..	8 90	
Fielding and Bartlett, locks,.....	62	
J. A. Brabrook, handles on clubs,.....	50	
Wm. & L. McFarlin, ice for police station for 1865 and 1866,.....	38 60	
Chase, Sargent & Shattuck, oiler, padlock, shovel and tacks, (for police station.)...	3 58	
George W. Norris, horses and carriages for police officers,.....	34 75	
John Hadley, horse and wagon for police officer,.....	4 00	
Isaac L. Libby, for cash paid out for washing and repairing bedding at police station,.....	5 50	
	<hr/>	\$1,300 42
<i>Amount carried forward</i> ,.....		\$26,920 92

Amount brought forward,.....\$26,920 92

Paid for STATIONERY:—

To Joshua Merrill,.....	47 22	
B. C. Sargeant,.....	1 50	
F. P. Coggeshall,.....	2 40	
George Ripley & Co.,.....	2 00	
	<hr/>	53 12
To amount of Superintendent of Streets' bills for the year,.....	384 10	
	<hr/>	384 10
Whole expenditure for the year,.....		\$27,358 14
Balance undrawn, January 1, 1867,.....		4,730 40
		<hr/>
		\$32,088 54
		<hr/>

FIRE DEPARTMENT.

Balance undrawn, January 1, 1866,.....	\$ 2,242 87	
Appropriated and assessed in 1866,.....	45,000 00	
	<u> </u>	\$47,242 87
Transferred from Permanent Loan,.....	4,000 00	
	<u> </u>	4,000 00

R E C E I P T S .

Received into the Treasury from various sources,	98 53	
	<u> </u>	98 53
		<u><u>\$51,341 40</u></u>

E X P E N D I T U R E S .

Paid CHIEF ENGINEER AND ASSISTANT ENGINEERS:—

To Weare Clifford, Chief Engineer, salary to November 1, 1866,.....	466 67
Charles H. Arlen, Assistant Engineer, to November 1, 1866,.....	91 66
James Sands, Assistant Engineer, to May 1, 1866,.....	2 08
John C. Hall, Assistant Engineer, and Clerk for the Board of Engineers, to November 1, 1866,.....	116 66
Samuel W. Taylor, Assistant Engineer, to November 1, 1866,.....	91 66
William W. Bates, Assistant Engineer, to November 1, 1866,.....	91 66
	<u> </u>
<i>Amount carried forward,.....</i>	\$860 39

* See page 11.

<i>Amount brought forward</i> ,.....	\$860 39	
Paid CHIEF ENGINEER AND ASSISTANT ENGINEERS:—		
To Cyrus E. Luscomb, Assistant Engineer, to November 1, 1866,.....	91 66	
Josiah Butler, Assistant Engineer, to November 1, 1866,.....	50 00	
	<u> </u>	1,002 05
Paid to FIREMEN:—		
To Firemen's annual time-pay to November 1, 1866,.....	13,333 19	
	<u> </u>	13,333 19
Paid for services as DRIVERS AND STEWARDS, &c., OF STEAM FIRE ENGINES:—		
To James F. Taylor, No. 3,.....	500 00	
Charles F. Cooper, No. 3,.....	83 20	
Frank D. Parsons, No. 1,.....	291 50	
J. C. Barnes, No. 1,.....	75 59	
James F. Taylor, washing bedding, &c.,....	13 50	
Charles F. Cooper, washing bedding, &c.,...	3 42	
Frank D. Parsons, washing bedding, &c.,...	13 92	
	<u> </u>	981 13
Paid for HORSES TO DRAW ENGINES, HOOK AND LADDER AND HOSE CARRIAGES TO FIRES, &c.:—		
To George W. Norris, for horses, rent of stable and bedding eleven months for two horses for Steamer No. 3, liniment, powders, brooms to sweep stable for three years, and taking care of water gate one year,....		
	211 50	
Daniel G. Leavitt, for horses,.....	238 00	
John Hadley, for horses,.....	64 50	
Joel Jenkins, for horses,.....	68 00	
J. F. Noyes, for horses,.....	32 00	
F. L. Sawyer, for teaming hose,.....	2 00	
Owen Garland, for teaming hose,.....	3 00	
Emerson & Porter, for four horses,.....	1,700 00	
	<u> </u>	2,319 00
Paid for HAY AND GRAIN FOR HORSES FOR STEAM FIRE ENGINES:—		
To Lamson, Rogers & Co., for grain,.....		
	121 71	
William E. Livingston, grain and hay,....	52 53	
Samuel N. Wood, grain,.....	116 43	
	<u> </u>	
<i>Amounts carried forward</i> ,.....	\$290 67	\$17,635 37

<i>Amounts brought forward,</i>	\$290 67	\$17,635 37
Paid for HAY AND GRAIN FOR HORSES FOR STEAM FIRE ENGINES:—		
To George W. Norris, hay,.....	25 75	
Sydney Davis, hay and straw,.....	199 22	
Porter Rogers, hay,.....	13 98	
Weare Clifford, hay and straw,.....	65 66	
William A. Giles, hay,.....	34 24	
	<hr/>	629 52
Paid for SUNDRIES:		
To William Jeffers & Co., one second-class Steam Fire Engine,.....	4,250 00	
Hunneman & Co., one Steam Fire Engine and apparatus,	4,250 00	
Hunneman & Co., repairing Steam Fire Engine, ..	2,357 91	
F. S. Perkins, repairing Steam Fire Engine, ..	404 58	
William Jeffers & Co., repairs on steamer,...	11 00	
Samuel Convers, altering over hose carriage, ..	475 00	
Proprietors of Locks and Canals on Merri- mack River, for one year's rent and use of Reservoir water to extinguish fires, to January 1, 1867,.....	750 00	
Proprietors of Locks and Canals on Merri- mack River, for Reservoir water to fill reservoirs on Union and Tyler streets,...	5 83	
Josiah Gates, 2,454 feet 2½ inch hose, blun- derbusses, couplings, oil, tallow, washers, leather, repairing hose, &c.,.....	5,014 53	
Merrimack Manufacturing Co., rent of Engine House No. 5.....	150 00	
J. R. Southwick, cash paid out for expenses of the Committee on the Fire Department to Boston, Roxbury, Somerville and Man- chester, N. H., to examine different pat- terns and styles of Steam Fire Engines before contracting for one, and to pur- chase horses for steamers,.....	60 55	
Weare Clifford, cash paid out for expenses to Pawtucket, R. I., express, freight, medi- cine for horses, and making bedding for steamer house, &c.,.....	198 45	
Charles H. Arlen, cash paid expenses to Paw- tucket, R. I., relating to new Steam Fire Engine,	15 00	
Boston & Lowell and Nashua & Lowell Rail- road Companies, freight on Steam Fire Engines and horses,	23 70	
<i>Amounts carried forward,</i>	<hr/>	\$17,966 55 \$18,264 89

Amounts brought forward,..... \$17,966 55 \$18,264 89

Paid for SUNDRIES:—

To Joel Jenkins, hose carriage,.....	500 00
Samuel Convers, repairing steamers, &c.,....	456 37
Samuel L. Butman, sett of double harness for steamer horses,.....	77 00
Joel Jenkins, painting, ornamenting and let- tering hose carriage, repairing hose car- riage, repairing bells, &c.,.....	61 33
S. L. Butman, two bridles,.....	11 50
George S. Hatch, horse blankets, badges, let- ters, wash leathers, oil, brushes, &c.,....	32 40
Weare Clifford, cash paid out for oiling hy- drant, tallow, teaming, &c.,.....	8 72
Lowell Machine Shop, bell-yoke, repairing hydrant, brass packing boxes, iron and brass castings, cesspool grates, &c.,.....	81 38
Eliphalet Hills, ladder rounds,.....	6 50
T. H. Curtis, latch keys and repairing lock,.	9 45
Richardson & Cutter, altering lock and mak- ing new keys,.....	1 50
Charles Going, rent of shed for coal wagon,..	6 00
Hammond & Foster, cannel coal,.....	168 00
O. D. Witherell, cannel coal,.....	300 00
Boston & Lowell and Nashua & Lowell Rail- road Corporations, freight on cannel coal,	36 00
A. L. Brooks, lumber and sawing,.....	18 96
Norcross & Saunders, plank,.....	15 12
M. C. Pratt, mouldings,.....	2 91
Livingston, Carter & Co., horse blankets,....	36 00
Luke C. Dodge, blankets and cotton waste,	31 50
H. R. Barker & Co., repairing pump ocean hose, labor on sprinkler, Central Bridge, pipe, elbow, brackets, nipples, brass cast- ings, repairs on steam gauge, &c.,.....	56 48
Fletcher & Mansur, oil, matches, resin, soap, pail, brooms, cordage, potash, polish, &c.,	17 96
F. H. Chandler & Co., sperm and kerosene oil, brooms, fluid, matches, soap, ink, tal- low, &c., (Steamer No. 2.).....	47 09
A. D. Puffer & Co., soap, sperm and sweet oil, matches, brooms, lard, polish, fluid, tal- low, pumice stone, &c.,.....	43 32
C. & A. P. Hall, sperm oil,.....	1 63
Albert Wheeler, sperm and kerosine oil, soap, sweet oil, matches, &c.,.....	3 76
Jason Fuller, salt,.....	2 05
C. H. Morse, cedar pail,.....	1 10

Amounts carried forward,..... \$20,000 58 \$18,264 89

Amounts brought forward,.....\$20,000 58 \$18,264 89

Paid for SUNDRIES:—

C. B. Coburn & Co., hose, couplings, benzine, flax, feather duster, rotten stone, sperm oil, gas tubing, red lead, cedar buckets, flax packing, tallow, roll brimstone, manila rope, emery cloth, varnish, brush, &c.,...	83 96
Person Noyes, fluid, lanterns, cans, wicks, lamps, burners, petroleum, coal hod and towel rolls,.....	74 87
Henry S. Orange, lanterns, &c,.....	6 68
Ira A. Clough, lanterns,.....	10 25
H. H. Wilder & Co., repairing lantern, air chamber, and brass castings, &c.,.....	9 08
J. R. Hayes, castor oil, liniment, spirits nitre, sponge, sulphur, castile soap, horse and russia salve, tincture arnica, oxalic acid, ointment, &c.,.....	19 36
Wamesit Engine Co., No. 3, labor filling reservoirs on Union and Tyler streets,.....	5 25
P. O. C. Frawley, refreshments at fire,.....	6 00
Josiah Grover, refreshments at fire,.....	9 50
James J. Locke, labor on Steamer No. 3,....	5 00
American Bolt Co., yoke bolt and repairing bell tongue,.....	3 00
John E. Crane, grate pattern for Steamer,...	5 73
Chamberlin & Hill, mending reel iron, repairing blunderbuss, &c,.....	3 25
William Dobbins, boiler iron, pipe, rivets, labor, &c., on Steamer,.....	18 17
George Maddocks, labor on Steamer No. 2,..	51 50
E. B. Collins, repairs on Engine No. 10.....	3 00
William Dugdale, labor on Steamer General Butler,.....	3 75
Aaron F. Stearns, labor on Steamer No. 2,..	2 50
John Butcher, chain and iron,.....	1 20
O. S. Flint, taking care of water gate to May 1, 1866,.....	10 00
Lovejoy & Morse, taking care of water gate to August 1, 1865,.....	4 17
Morse & Gage, taking care of water gate to May 1, 1866,.....	7 50
Alphonso Merrill, drawing hose to fire,.....	3 00
T. A. Sanborn, whitewashing and repairing plastering Engine House No. 10,.....	3 00
D. M. Prescott, coloring, plastering and labor, Engine House No. 1,.....	46 79

Amounts carried forward,.....\$20,397 09 \$18,264 89

Amounts brought forward,..... \$20,397 09 \$18,264 89

Paid for SUNDRIES:—

To Read & Frye, brick, labor, cement, mortar, sand, &c., (Engine Houses at Ayer's City, and No. 3,).....	32 40	
J. & J. W. Murkland, pattern and stock,...	2 25	
Furnald & Rollins, labor, &c., (on hydrants,)	23 32	
John T. Lee, shoeing horses, chains, labor on Steamer, &c.,.....	39 35	
James Crawford, shoeing horses,.....	60 21	
O'Connell & Stinson, iron work,.....	4 15	
Convers Nichols, repairing irons, (engine house,).....	50	
H. P. Clough, iron work,.....	11 17	
J. H. Farley, oil cans, door handles, iron tool box, wash dishes, repairing pump, lanterns, &c.,.....	14 05	
Lawrence Manufacturing Co., cotton waste,..	30 50	
B. C. Sargeant, stationery,.....	13 00	
Joshua Merrill, stationery,.....	18 00	
Fielding & Bartlett, hardware,.....	25 07	
Jacob Rogers & Co., hardware,.....	63 74	
Chase, Sargent & Shattuck, hardware,.....	1 71	
Cushing & Maek, smoke pipe, stoves, drinking cups, repairing lanterns, grate, guards, &c,	38 80	
T. Costello & Co., solder, lead pipe, labor, &c.,	4 30	
J. W. Nash & Co., oil can, lamp, burners, &c.,	2 85	
Crosby & Drown, labor on reservoir, Chapel street,.....	22 00	
Albert Merriam, chairs, (Engine House No. 2,)	24 50	
J. B. Quimby, glass, painting and frosting window, (Engine House No. 10,).....	55	
J. B. Fielding, lanterns, benzine, wicks, paint, glass, ornamenting signal lantern, varnish, graining, feather duster, labor, &c.,.	104,65	
Appropriation for School Houses, for glass, joist, &c.,.....	11 51	
To Amount of Superintendent of Public Buildings' bills,.....	128 37	
To amount of Superintendent of Streets' bills, ..	691 17	
	<hr/>	21,765 21
Paid for ADDITION TO THE ENGINE HOUSE, (on Middlesex Street, &c.) :—		
To Heirs of John Buttrick, and to Josiah E. Short, for 3,650 feet of land on the corner of Middlesex and Grand streets, at 45 cents per foot,.....	1,642 50	

Amounts carried forward,..... \$1,642 50 \$40,030 10

<i>Amounts brought forward</i>	\$1,642 50	\$40,080 10
Paid for ADDITION TO THE ENGINE HOUSE (on Middlesex Street, &c.) :—		
To Middlesex Registry of Deeds, Northern District, for recording deed of the above land to the City of Lowell.....	85	
Luther Kittredge, laying cellar wall.....	98 05	
Rumels, Clough & Co., stone and labor.....	23 84	
Read & Frye, brick, cement, gravel, labor, &c.....	970 13	
Norcross & Saunders, lumber.....	311 03	
H. & A. Whitney, lumber.....	21 74	
Davis & Melendy, lumber.....	81 36	
M. C. Pratt, lumber, doors, planing, sawing, moulding, sash, &c.....	45 18	
L. G. Howe, panel door.....	3 00	
William E. Livingston, laths.....	9 00	
Robert Goulding, removing slate.....	8 75	
J. W. Bennett, covering roof, zinc, patent horse collars for cribs, &c.....	139 77	
H. P. Clough, iron work.....	4 40	
D. M. Prescott, plastering and whitening...	35 00	
Fielding & Bartlett, hardware.....	41 75	
Cushing & Mack, gutter, conductor, labor, &c.....	147 35	
Brown & Carter, paint, oil, glass, graining, varnish, labor, &c.....	93 91	
H. B. Barker & Co., gas fittings and labor...	27 10	
To amount of Superintendent of Public Buildings' bills.....	248 74	
To amount of Superintendent of Streets' bills...	200 00	
	<hr/>	4,153 45
Paid for FURNISHING THE ABOVE ENGINE HOUSE WITH BEDDING:—		
To Tucker Manufacturing Company, iron bedsteads.....	34 50	
Manning, Glover & Co., curled hair for mattresses.....	40 50	
Hamilton Manufacturing Company, ticking..	23 47	
Lawrence Manufacturing Company, sheeting,	16 40	
George Offutt & Son, making mattresses, pillows, ticks, spreads, sheets, cushions, &c.....	24 91	
William Fiske, for comfortables.....	10 50	
Keyes & Tucker, bed spreads.....	10 50	
	<hr/>	160 73
<i>Amount carried forward</i>	\$44,344 33	

Amount brought forward,.....\$44,344 33

Paid for the ERECTION OF A DOUBLE
ENGINE HOUSE FOR STEAM FIRE
ENGINES, Middle Street:—

To Daniel W. Horne, 4,506 feet Warren's roofing,	247 83
Appropriation for School Houses, for Primary School House and Land on Middle Street, as per agreement of the Committees on Lands and Buildings and Fire Depart- ment,	1,500 00
Runels, Clough & Co., stone and labor,.....	20 67
M. D. L. Sherman, brick, plastering, lime, brushes, whitewashing, labor &c.,.....	506 36
L. G. Howe, lumber,.....	5 93
H. & A. Whitney, lumber,.....	115 47
Norcross & Saunders, lumber,.....	66 83
A. L. Brooks, lumber,.....	299 53
M. C. Pratt, lumber, chestnut mouldings, doors, planing, sawing, &c.,.....	258 04
J. G. Peabody, window sash,.....	3 60
Eliphalet Hills, making cess-pool pattern,...	1 25
Milton Aldrich, ladder rounds, hose pins, &c.,	12 70
J. W. Bennett, patent collars, &c., (for stalls,)	25 29
George T. Comins, ash plank,.....	7 98
E. G. Cook, load tan,.....	3 75
Fielding & Bartlett, nails,.....	24 50
Jacob Rogers, hardware,.....	100 66
Chase, Sargent & Shattuck, hardware,.....	11 09
Cushing and Mack, galvanized iron conductor, lead pipe, solder, labor &c.,.....	9 25
H. R. Barker, gas pipe, fittings, &c.,.....	76 62
H. R. Barker & Co., brackets, gas pipe, meter connections, fittings, labor, &c.,.....	138 46
H. H. Wilder, iron force pump, solder, &c.,...	16 75
H. H. Wilder & Co., copper pump, &c.,.....	7 88
American Bolt Co., bolts,.....	7 20
H. A. Hildreth, wire netting,.....	21 54
Lane & Nowell, labor, &c.,.....	52 35
Daniel Lovejoy, hinges, spikes, bolts, washers, door-stops, staples, rings, springs, &c.,...	106 46
O'Connell & Stinson, iron work,.....	23 75
Abraham Page, whitewashing,.....	5 00
C. B. Coburn & Co., glass, glue, manila rope,	22 14
J. B. Quimby, painting, graining, varnishing, filling, putty, labor, &c.,.....	296 81
J. E. Westall, glazing, paint, oil, labor, &c.,	33 31

Amounts carried forward.....\$4,029 00 \$44,344 33

<i>Amounts brought forward</i> ,	\$4,029 00	\$44,344 33
Paid for the ERECTION OF A DOUBLE ENGINE HOUSE FOR STEAM FIRE ENGINES, Middle Street:—		
To Amount of Superintendent of Streets' bills, for paving,	70 15	
To amount of Superintendent of Public Buildings' bills,	676 96	
		<u>\$4,776 11</u>
Paid for FURNISHING STEAM FIRE EN- GINE HOUSE, Middle Street:—		
To Jacob Nichols, chairs and bureau,	97 50	
Adams, North & Co., looking glass,	12 00	
W. H. Dyar & Co., time-piece,	8 00	
H. R. Barker & Co., two chandeliers,	36 00	
Tucker Manufacturing Company, bedsteads, ..	57 50	
Hamilton Manufacturing Company, bed tick- ing,	52 85	
Lawrence Manufacturing Company, sheeting, Manning, Glover & Co., curled hair for mat- tresses,	29 04	
	84 00	
George Offatt & Son, making mattresses,	13 82	
Keyes & Tucker, quilts,	24 00	
William Fiske, comfortables,	21 00	
H. R. Barker & Co., lantern frame and lan- tern pipe,	18 00	
Boston & Lowell and Nashua & Lowell Rail- road Companies, lantern,	4 00	
Adams, North & Co., enamelled cloth, &c., ..	16 67	
George N. Osgood, filling and varnishing tables,	2 50	
Cushing & Mack, one Oriental Stove, \$50.00, and two No. 2 A. T. Stoves, \$12.00 each, ..	74 00	
Cushing & Mack, russia pipe, zinc, wash basins, &c.,	46 60	
		<u>597 48</u>
Whole expenditure for the year,	\$49,717 92	
Balance undrawn, January 1, 1867,	1,623 48	
		<u>\$51,341 40</u>

*The amount expended in 1865,

The amount expended in 1866,

Total Expense,

WATER PIPE.

Balance undrawn, January 1, 1866,.....	\$1,064 85	
	<hr/>	\$1,064 85
Expenditure,.....	0,000 00	
	<hr/>	0,000 00
		<hr/>
Balance undrawn, January 1, 1867,.....	\$1,064 85	
	<hr/>	<hr/>

SEWERS AND DRAINS.

Balance undrawn, January 1, 1866,.....	\$970 11	
	\$970 11	\$970 11

R E C E I P T S.

Received for SEWER ASSESSMENTS:—

IN APRIL:

Of Leonard Wood, for assessment of 1851, on Charles Street Sewer,.....	21 75	
	21 75	21 75

IN NOVEMBER:

Of Asa Austin, for sewer assessment on Tyler street,	4 86	
	4 86	4 86
		\$996 72

E X P E N D I T U R E S.

Paid for SUNDRIES:—

To Wamesit Engine Co., No. 3, labor washing out sewers,.....	35 50	
Steam Fire Engine Co., No. 1, labor washing out sewers,.....	14 62	
Lowell Machine Shop, cess-pool grates,.....	11 00	
M. C. Pratt, sawing,.....	37	
	61 49	
To amount of Superintendent of Streets' bills for the year,.....	516 16	
	516 16	516 16
To amount of Superintendent of Public Build- ings' bills for the year,.....	2 50	
	2 50	
Whole expenditure for the year,.....		\$580 15
Balance undrawn, January 1, 1867,.....		416 57
		\$996 72

COMMONS

Appropriated and assessed in 1866,.....	\$1,000 00	
	<u> </u>	1,000 00
Transferred from Permanent Loans,.....	200 00	
	<u> </u>	200 00

R E C E I P T S .

* Received into the Treasury from various sources,	31 34	
† Received from the Appropriation for Roads and Bridges, for grass, (North Common,)...	100 00	
† Received from the Appropriation for Roads and Bridges, for fence boards,.....	24 30	
	<u> </u>	155 64
		<u> </u>
		1,355 64
Deduct amount overdrawn, January 1, 1866,...	118 89	
	<u> </u>	118 89
		<u> </u>
		<u>\$1,236 75</u>

E X P E N D I T U R E S .

Paid for SUNDRIES:—

To John McAleer, labor,.....	108 33
Thomas Gallagher, whitewashing fences on Commons,.....	23 50
William E. Livingston, lime,.....	8 00
Otis Adams, Jr., Chestnut posts,.....	27 27
A. L. Brooks, lumber,.....	70 68
Jacob Rogers & Co., hardware and whitewash brushes,.....	10 69
	<u> </u>
<i>Amount carried forward,.....</i>	<i>\$248 47</i>

* See page 12.

† See expenditure for Roads and Bridges.

LIGHTING STREETS AND PUBLIC BUILDINGS.

Balance undrawn, January 1, 1866,.....	\$1,719 18	
Appropriated and assessed in 1866,.....	7,000 00	
	<u> </u>	\$8,719 18
Transferred from Permanent Loans.....	4,000 00	
	<u> </u>	4,000 00

R E C E I P T S .

° Received from Appropriation for Roads and Bridges, for a horse,.....	240 00	
	<u> </u>	240 00
		\$12,959 18

E X P E N D I T U R E S .

Paid for LIGHTING STREETS:—

To Lowell Gas Light Company, for gas,.....	3,955 85
Horace R. Barker & Co., gas fitting and labor,	319 64
H. H. Wilder, fluid lanterns,.....	30 00
H. H. Wilder & Co., gas lanterns, fluid lanterns, repairing lanterns, &c.,.....	146 21
Daniel Lovejoy, iron for lamp hangers and labor,	6 90
O'Connell & Stinson, shoeing horse,.....	4 33
Person Noyes, fluid, lamps, burners, &c.,....	406 96
C. B. Coburn & Co., glass, alcohol, sperm oil, benzine, can, &c.,.....	20 80
Lowell Machine Shop, lamp posts, cross heads, gas lantern frames, &c.,.....	504 55
Thomas F. Burgess & Co., fitting up lamp frames,	28 00
	<u> </u>
<i>Amount carried forward,.....</i>	\$5,423 24

* See expenditures for Roads and Bridges.

Amount brought forward,..... \$5,423 24

Paid for LIGHTING STREETS:—

To Fordice Coburn, for horse,.....	225 00	
J. B. Fielding, paint, brush, and chamois skin,.....	13 47	
Joel Jenkins, repairing harness and wagon, ..	12 48	
Samuel Convers, repairing wagon,.....	23 88	
B. I. Peabody, sett of wheels,.....	15 00	
S. L. Butman, chamois skins and bells,.....	4 75	
Henry S. Orange, fluid and wicking,.....	3 50	
Ira A. Clough, fluid and wicking,.....	16 10	
George Ripley & Co., cotton waste,.....	1 90	
Joshua Merrill, stationery,.....	7 55	
Buttrick & Co., matches,.....	2 50	
A. L. Brooks, chestnut timber,.....	32 13	
Norcross & Saunders, spruce plank,.....	2 34	
W. & J. W. Murkland, use of circular saw and lathe,.....	2 69	
Jacob Rogers & Co., hardware,.....	77	
Appropriation for School Houses, for glass, ..	116 50	
Appropriation for Schools, for broom and pail,	1 12	
Charles Dalton, labor lighting,.....	38 25	
Charles C. Fowler, do. do.	96 60	
Arthur Sargent, do. do.	51 82	
W. S. C. Sargent, do. do.	537 98	
Asa Carlin, do. do.	8 75	
Fred Marshall, do. do.	12 83	
To amount of Superintendent of Streets' bills for the year,.....	310 27	
To amount of Superintendent of Public Build- ings' bills for the year,.....	23 88	
		6,985 30
Paid for LIGHTING PUBLIC BUILD- INGS:—		
To Lowell Gas Light Company, for gas,.....	2,390 96	
Horace R. Barker & Co., pipe, labor, &c.,...	11 50	
		2,402 46
Whole expenditure for the year,.....	9,387 76	
Balance undrawn, January 1, 1867,.....	3,571 42	
		<u>\$12,959 18</u>

REPAIRS OF PUBLIC BUILDINGS.

Balance undrawn, January 1, 1866,.....	\$	7,36 33	
Appropriated and assessed in 1866,.....		5,000 00	
		5,736 33	5,736 33

R E C E I P T S .

* Received into the Treasury, from various sources,	249 55		
	249 55		
		\$5,985 88	

E X P E N D I T U R E S .

Paid for ADDITION AND ENLARGING
THE ENTRANCE TO HUNTINGTON
HALL, on Shattuck Street:—

To Read & Frye, brick, lime, cement, sand, labor, &c.,.....	428 65		
A. L. Brooks, lumber,.....	59 59		
William Waugh, slating and tinning roof,...	94 42		
D. M. Prescott, laths, lime, plastering, la- bor, &c.,.....	115 28		
Cushing & Mack, gutter, taking off tin, and repairing gutter, &c.,	45 70		
Thomas Pratt, black walnut, joint bolts, irons to hand rails, labor, &c.,.....	49 71		
Jeduthan Kittredge, paint, graining, varnish, labor, &c.,.....	53 60		
C. P. Talbot & Co., acid and jug,.....	3 05		
To Superintendent of Public Buildings' bills,...	114 31		
	964 31		
<i>Amount carried forward,.....</i>		\$964 31	

* See page 12.

Amount brought forward,..... \$964 31

Paid for SUNDRIES:—

To H. R. Barker, pipe, couplings, labor, &c.,...	67 50
H. R. Barker & Co., labor on steam pipe, pipe, &c.,.....	74 58
H. & A. Whitney, lumber,.....	280 01
A. L. Brooks, lumber,.....	85 14
M. C. Pratt, lumber, sash, sawing, mould- ing, &c.,.....	50 46
Furnald & Rollins, black walnut,.....	36
W. & J. W. Murkland, use of circular saw, lathe, &c.,.....	2 36
John Pettingell, chimney caps,.....	60 72
Robert Goulding, labor repairing roofs, slate, nails, &c.,.....	23 93
William Waugh, slate, zinc, lead, labor, &c.,	10 27
R. P. Davis, slating, &c., (hay scales,).....	14 70
Fielding & Bartlett, hardware,.....	7 51
Jacob Rogers, hardware,.....	9 69
Jacob Rogers & Co., hardware,.....	156 98
Chase, Sargent & Shattuck, hardware,.....	20 35
Davis & Storer, lumber,.....	123 55
T. H. Curtis, for keys,.....	5 25
Richardson & Cutter, for keys,.....	1 05
John Butcher, steel and rivets,.....	1 50
American Bolt Co., iron rod,.....	6 21
John Wheeler, clothing racks, gas pipe and fixtures, (Huntington Hall Building,)...	20 00
H. H. Wilder & Co., repairing pipe, lead, solder, cement, copper pan, labor, &c.,...	29 50
Cushing & Mack, ventilator rods, &c.,.....	3 25
George N. Osgood, paint, varnish, paper, putty, labor, &c.,.....	184 53
J. B. Quimby, painting and graining,.....	8 71
J. B. Fielding, for brush,.....	10
C. B. Coburn & Co., glazier's diamond, glass, hemp cord, flax packing, oil, putty, spir- its turpentine, oil, brushes, &c.,.....	30 84
Crosby & Drown, mason work, (Market House Building,).....	131 67
D. M. Prescott, mason work,.....	49 05
M. D. L. Sherman, mason work,.....	1 97
Sydney Davis, mason work, &c., (hay scales,)	4 37
Abram Page, whitewashing station house,...	45 00
Daniel W. Horne, repairing bell-deck, (Mark- et House,).....	32 17
Elbridge Gerry, repairing lightning rods,...	2 50
O'Connell & Stinson, iron work,.....	3 75

Amounts carried forward,..... \$1,549 53 \$964 31

<i>Amounts brought forward,.....</i>	\$1,549 53	\$964 31
Paid for SUNDRIES:—		
To P. O'Connell, blacksmithing,.....	5 12	
H. P. Clough, iron work,.....	1 00	
James Farley, repairing pipe,.....	1 00	
L. G. Howe, use of horse and wagon,.....	58 68	
B. C. Sargeant, stationery,.....	4 37	
Milton Aldrich, bayonet pins, (Armories,)...	5 00	
Runels, Clough & Co., stone, labor, &c.,....	60 82	
Adams, North & Co., oil carpeting, carpet felting, brush mats and enamelled cloth,.	50 39	
Albert Merriam, repairing and painting set- tees, (for the armories,).....	45 25	
B. C. & M. A. Benner, tables, feather duster and cocoa mats,.....	31 50	
Appropriation for Schools, for pails, brushes, and mats,.....	3 50	
	<hr/>	1,816 16
To amount of Superintendent of Public Build- ings' bills for the year,.....	370 22	
	<hr/>	370 22
Whole expenditure for the year,.....	3,150 69	
Balance undrawn, January 1, 1867,.....	2,835 19	
	<hr/>	\$5,985 88
	<hr/>	

CITY LIBRARY.

Balance undrawn, January 1, 1866,.....	\$468 60	
Appropriated and assessed in 1866,.....	800 00	
	<u> </u>	1,268 60

R E C E I P T S.

* Received into the Treasury from various sources,	804 70	
	<u> </u>	804 70
		<u> </u>
		<u> </u>
		\$2,073 30

E X P E N D I T U R E S.

Paid to George C. Edwards, Librarian, (salary) ..	800 00	
	<u> </u>	800 00

Paid for SUNDRIES:—

To F. P. Coggeshall, books,.....	312 94	
Abel Whitney, books and binding books,....	45 16	
Joshua Merrill, books, binding, &c.,.....	39 00	
B. C. Sargeant, books,.....	9 80	
S. B. Eaton, books,.....	54 58	
J. J. Judkins, books,.....	66 18	
P. D. & T. S. Edmands, repairing books,...	50 03	
S. B. Simonds, binding reports,.....	1 26	
C. B. Richmond, manila paper,.....	27 72	
Lowell M. F. Ins'ce Co., insurance on \$3,000 from January 1, 1866 to January 1, 1871,	22 50	
Geo. C. Edwards, postage stamps and matches,	4 50	
Ray & Hill, repairing and varnishing table, desk, chairs, making cushions, &c.,.....	20 50	
Knapp & Morey, printing and advertising,..	30 28	
Stone & Huse, printing and advertising,....	21 00	
	<u> </u>	705 45
		<u> </u>
Whole expenditure for the year,.....		1,505 45
Balance undrawn, January 1, 1867,.....		567 85
		<u> </u>
		<u> </u>
		\$2,073 30

* See pages 12 and 13.

SALARIES.

Balance undrawn, January 1, 1866,.....	\$ 132 56
Appropriated and assessed in 1866,.....	12,000 00
	<u>\$12,132 56</u>

EXPENDITURES.

Paid to Josiah G. Peabody, Mayor,.....	1,500 00
Thomas G. Gerrish, Treasurer and Col- lector,.....	1,600 00
John H. McAlvin, City Clerk,.....	1,500 00
George Gardner, Auditor and Clerk of Common Council,.....	1,400 00
Tappan Wentworth, City Solicitor,.....	900 00
Lorenzo G. Howe, Superintendent of Pub- lic Buildings,.....	900 00
Calvin Philbrick, Messenger to the City Council,.....	900 00
Nathan Allen, City Physician and Super- intendent of Burials,.....	14 80
George E. Pinkham, City Physician and Superintendent of Burials,.....	585 20
Caleb M. Marvel, Chairman of the Board of Assessors,.....	580 00
Joel Powers, Assessor,.....	480 00
J. B. V. Coburn, Assessor,.....	480 00
Darius Whithed, Assessor,.....	480 00
William Lamson, Jr., Assessor,.....	480 00
George E. Stanley, Inspector of Milk,...	25 00
Thomas Simpson, Pound Keeper,.....	25 00
	<u>11,850 00</u>
Whole expenditure for the year,.....	11,850 00
Balance undrawn, January 1, 1867,.....	282 56
	<u>\$12,132 56</u>

SETTING TREES.

Balance undrawn, January 1, 1866,.....	\$96 25	
	<u> </u>	\$96 25
Expenditure,.....		00 00
		<u> </u>
Balance undrawn, January 1, 1867,.....		\$96 25
		<u><u> </u></u>

CITY DEBT.

Balance undrawn, January 1, 1866,.....	\$45 89	
	<u> </u>	\$45 89
Payments,		00 00
		<u> </u>
Balance undrawn, January 1, 1867,.....		\$45 89
		<u><u> </u></u>

INTEREST ON CITY DEBT.

Balance undrawn, January 1, 1866,.....	\$22,772 64	
Appropriated and assessed in 1866,.....	30,000 00	
		<u>\$52,772 64</u>

R E C E I P T S .

Received from Commonwealth, for interest on State Tax, paid before tax was due,.....	518 50	
		<u>518 50</u>
		<u>\$53,291 14</u>

P A Y M E N T S .

Paid to City Institution for Savings,.....	9,095 00	
Salem Savings Bank,.....	2,500 00	
Lowell Institution for Savings,.....	4,720 00	
Mechanics' Savings Bank (of Lowell),..	2,100 00	
Lowell Five Cents Savings Bank,.....	1,100 00	
Boston Five Cents Savings Bank,.....	6,000 00	
Railroad National Bank (Interest on tem- porary loans),.....	1,337 00	
		<u>26,852 00</u>
Whole amount of payments for the year,.....		26,852 00
Balance undrawn, January 1, 1867,.....		26,439 14
		<u>\$53,291 14</u>

LIQUOR AGENCY.

RECEIPTS.

Received of Charles R. Kimball, Agent for sales,	\$2,902 52	
	<u> </u>	2,902 52
		<u> </u>

EXPENDITURES.

Paid to Charles R. Kimball, Agent, (salary),..	300 00	
	<u> </u>	300 00
Paid for LIQUORS:—		
To Edward F. Porter, State Commissioner,.....	1,336 30	
John I. Baker, State Commissioner,.....	1,255 80	
	<u> </u>	2,592 10
Paid for SUNDRIES:—		
To Charles R. Kimball, cash paid out for U. S.		
Government license,.....	25 00	
Charles R. Kimball, cash paid out for freight		
on liquors,.....	8 30	
	<u> </u>	33 30
Whole expenditure for 1866,.....	2,925 40	
To amount overdrawn, January 1, 1866,.....	205 05	
	<u> </u>	3,130 45
* Overdrawn, January 1, 1867,.....	227 93	
	<u> </u>	\$2,902 52
		<u> </u>

* The amount of stock and fixtures on hand, January 1, 1867, is \$1,308 36; and no outstanding bills against the Agency.

CARNEY MEDAL FUND.

* Received of James G. Carney, Esq., in 1858 and 1859, the amount of two hundred dollars, which is to remain a perpetual debt of the City forever; the interest to be applied in payment for the "Carney Medals," to the departments of the High School (annually),.....		\$200 00	
		<u> </u>	<u>\$200 00</u>
Undrawn, January 1, 1867,.....			<u>\$200 00</u>

* One Hundred dollars was donated August 24, 1858, and accepted by the City Council, September 14, 1858, and One Hundred Dollars additional, July 15, 1859, and accepted July 26, 1859. For the information of the citizens of Lowell, the Auditor respectfully refers them to the "Annual Report of the School Committee," for the year 1859, where all the correspondence between the donor and recipient may be found.

P E R M A N E N T L O A N S .

Balance unappropriated, January 1, 1866,.....	\$34,624 08
	\$34,624 08
	\$34,624 08

T R A N S F E R S .

Transferred to the credit of Schools,.....	20,000 00
Transferred to the credit of Roads and Bridges,.	2,424 08
Transferred to the credit of Fire Department,..	4,000 00
Transferred to the credit of Paupers,.....	3,000 00
Transferred to the credit of Lighting Streets and Public Buildings,.....	4,000 00
Transferred to the credit of Printing and Adver- tising,.....	1,000 00
Transferred to the credit of Commons,.....	200 00
	34,624 08
	\$00,000 00

TEMPORARY LOANS.

Borrowed of Railroad National Bank,.....\$103,250 00
_____ \$103,250 00

PAYMENTS.

Paid to Railroad National Bank,.....103,250 00
_____ \$103,250 00

TABLE OF APPROPRIATIONS FOR 1866,

INCLUDING THE BALANCES UNDRAWN AT THE COMMENCEMENT OF THE YEAR;

ALSO, THE EXPENDITURES FOR 1866, AND THE BALANCES

UNDRAWN JANUARY 1, 1867.

	APPROPRIATIONS.	EXPENDITURES.	BALANCES.
Schools,	\$82,061 77	\$66,398 31	\$15,663 46
School Houses,	6,812 59	5,495 90	1,316 69
Roads and Bridges,	33,946 89	28,499 12	5,447 77
Reserved Fund,	22,103 08	14,431 33	7,671 75
*Relief of Soldiers' Families,	62,162 47	5,987 00	
*State Aid for Disabled Soldiers and Sailors and their Families, and for the Families of the slain,		30,248 00	
Paupers,	17,926 04	15,248 96	2,677 08
Police,	32,088 54	27,358 14	4,730 40
Fire Department,	51,341 40	49,717 92	1,623 48
Water Pipe,	1,064 85		1,064 85
Sewers and Drains,	996 72	580 15	416 57
Commons,	1,236 75	1,216 33	20 42
Printing and Advertising,	3,205 58	2,313 09	892 49
Lighting Streets and Public Buildings,	12,959 18	9,387 76	3,571 42
Repairs of Public Buildings	5,985 88	3,150 69	2,835 19
City Library,	2,073 30	1,505 45	567 85
Salaries,	12,132 56	11,850 00	282 56
Setting Trees,	96 25		96 25
City Debt,	45 89		45 89
Interest on City Debt,	53,291 14	26,852 00	26,439 14
†Liquor Agency,	2,902 52	2,925 40	
Carney Medal Fund,	200 00		200 00
Corporation Tax,	32,641 22		32,641 22

* Unsettled accounts with the Commonwealth.

† Overdrawn.

NOTES DUE FROM THE CITY, DECEMBER 31, 1866.

Date of Notes.	To whom Payable.	Amount.	Per Cent.	Interest, when due.	Annual Interest.	Installments, when due.	Amount of Installments.
1847, May 3, 1852, Sept. 1,	Lowell Inst'n for Savings, Lowell Inst'n for Savings,	\$20,000 00 30,000 00	5 5	Sept. 15, each year, Sept. 1, and March } 1, each year,	\$1,000 00 1,500 00	1867, Sept. 15, 1882, Sept. 1,	\$20,000 00 30,000 00
1857, Feb. 21,	City Inst'n for Savings,	42,000 00	5½	Feb. 21, each year,	2,450 00	1869, Nov. 1, ½; & ¼ Nov. 1, 1871, and Nov. 1, 1873, & the bal. Nov. 1, 1875,	10,500 00 in each quar- terly pay- ments.
1862, Aug. 5, 1862, Sept. 13,	Salem Savings Bank, Lowell Five Cents Sav- ings Bank,	50,000 00 10,000 00	5 5½	Semi-annually, Semi-annually,	2,500 00 550 00	1872, Aug. 5, 1882, Sept. 13,	50,000 00 10,000 00
1862, Nov. 3, 1864, April 1, 1864, Aug. 9, 1864, Aug. 13, 1865, Jan. 13, 1865, March 1, 1865, March 22,	City Inst'n for Savings, City Inst'n for Savings, Boston Five Cts. S'gs B'k, Boston Five Cts. S'gs B'k, City Inst'n for Savings, Mechanics' Savings bank, Lowell Inst'n for Savings,	10,000 00 30,000 00 38,000 00 50,000 00 50,000 00 50,000 00 37,000 00	5½ 5½ 5½ 6 6 6 6	Semi-annually, Nov. 3, and May 3, Oct. 1 and April 1, March 16 & Sept. 16, March 16 & Sept. 16, Semi-annually, Semi-annually, Semi-annually,	550 00 1,650 00 1,995 00 3,000 00 3,000 00 3,000 00 2,100 00 2,220 00	1877, Sept. 13, 1887, Nov. 3, 1894, April 1, 1874, August 9, 1874, August 13, 1880, January 13, 1870, March 1, 1880, March 22,	10,000 00 30,000 00 38,000 00 50,000 00 50,000 00 50,000 00 35,000 00 37,000 00
	Amount of City Debt,	\$452,000 00					\$25,515 00

TAXES.

The amount of Taxes assessed on the Polls and on the Real and Personal Estate, in the City of Lowell, for the year 1866, was as follows:—

VALUATION OF REAL AND PERSONAL PROPERTY.

Of Corporations, \$11,762,839 00	Tax \$13 80 per \$1,000, \$162,327 18
Residents, . . . 9,080,975 00	“ “ “ 125,317 54
Non-residents, 1,140,945 00	“ “ “ 15,745 04
<u>\$21,984,759 00</u>	<u>\$303,389 76</u>

Number of Polls, 8,122, at \$2 00	16,244 00
	<u>\$319,633 76</u>

Of this amount \$62,220 00 went to pay the City's proportion of the State Tax.

The City's proportion of the State Tax for 1866, was	\$62,220 00
“ “ “ “ “ 1865, was	97,478 00
Decrease from 1865,	<u>\$35,258 00</u>

The City's proportion of the County Tax for 1866, was	\$16,490 68
“ “ “ “ “ 1865, was	15,039 50
Increase over 1865,	<u>\$1,451 18</u>

The number of Polls, in 1866, was.....	8,122	
“ “ 1865, was.....	6,105	
Increase over 1865,.....	2,017	
Amount of Taxes assessed in 1866, was.....	\$319,633	76
Amount of Taxes collected of the assessment of 1866, was.	314,545	59
		<hr/>
		5,088 17
* Amount of Taxes abated on the assessment of 1866, by the Assessors prior to January 1, 1867, before collection, as per their report, was.....	1,002	43
		<hr/>
		4,085 74
Amount of Taxes assessed, after the Annual Tax List was committed (in 1866),.....	16	35
		<hr/>
		4,102 09
Deduct amount of Taxes collected, which were assessed after the regular Annual Tax List was committed (in 1866),	16	35
		<hr/>
Leaving the amount of Taxes uncollected (assessed in 1866), due January 1, 1867,.....	\$4,085	74
		<hr/> <hr/>

APPROPRIATED AND ASSESSED IN 1866 :—

For the ordinary expenses of the City,.....	\$229,800	00
For State Tax,.....	62,220	00
For County Tax,.....	16,490	68
For Overlays,.....	11,123	08
		<hr/>
Total amount of Taxes on Property and Polls,.....	\$319,633	76
		<hr/> <hr/>

* For abatements made after collection of Taxes, see Reserved Fund.

CORPORATION TAX.

Balance unappropriated, January 1, 1866,.....	\$39 01	
	<u> </u>	\$39 01

R E C E I P T S.

Received from Commonwealth, for Taxes on Corporation Stocks collected by the State, for 1865,.....	16,818 17	
Received from Commonwealth, for Taxes on Corporation Stocks, collected by the State, for 1866, (in part,).....	15,784 04	
	<u> </u>	32,602 21
Balance unappropriated, January 1, 1867,.....		<u><u>\$32,641 22</u></u>

STATE AID FOR DISABLED SOLDIERS AND SAILORS, &C.

EXPENDITURES.

Paid to Disabled Soldiers and Sailors and their Families, and for the Families of the Slain, under an Act of the Legislature of the Commonwealth, Chapter 172, Approved April 23, 1866, (as per Resolution of the City Council,).....	\$30,248 00	
	<hr/>	\$30,248 00
Due from the Commonwealth, January 1, 1867,.....	\$30,248 00	<hr/>

DEBTS DUE THE CITY,

January 1, 1867.

For Taxes of 1866,.....	\$4,101 72
“ Sidewalk assessments made previous to the year 1861, per assessment books,.....	\$2,240 03
“ Sidewalk assessment west side Favor street,	311 52
“ “ “ east side “ “	156 45
“ Sewer assessments, made previous to the year 1862, per assessment books, most of which are suspended until entered,.....	3,309 37
“ Notes secured by mortgage,.....	515 00
“ Sundry persons, book account,.....	770 70
From Commonwealth of Massachusetts, balance of State aid paid in the year 1864,.....	5,135 40
From Commonwealth of Massachusetts, balance of State aid paid in the year 1865,.....	2,272 00
From Commonwealth of Massachusetts, balance of State aid paid in the year 1866,.....	35,760 00
From Rent of Armories,.....	600 00
From Burial of State Paupers,.....	265 00
From Militia Bounty,.....	2,091 00
From Corporation Tax,.....	1,595 25
	<hr/> 55,021 72
	<hr/> \$59,123 44

REAL ESTATE OWNED BY THE CITY.

City Government Building,.....	\$25,000 00
Huntington and Jackson Halls,.....	35,000 00
Common, south of City Government Building,.....	1,100 00
South Common,.....	23,300 00
North Common,.....	18,300 00
Belvidere Park,.....	2,300 00
Market House,.....	47,000 00
City Scales, rear of Market House,.....	1,000 00
Almshouse and Farm,.....	25,000 00
High School House, of brick, on Anne and Kirk Streets,....	18,800 00
North and South Grammar School Houses, of brick,.....	23,000 00
Grammar School House, of brick, in Belvidere,.....	11,000 00
Grammar School House, of brick, corner Middlesex and Branch Streets,.....	11,300 00
Grammar School House, of brick, on Lawrence Street,.....	14,700 00
Grammar School House, of brick, on Middle Street,.....	12,600 00
Grammar School House, of brick, on Lewis Street,.....	12,500 00
Grammar School House, of brick, in Centralville,.....	15,000 00
Primary School House and Ward Room, of brick, corner of Merrimack and Race Streets,.....	3,400 00
Primary School House and Ward Room, of brick, on Church Street,.....	4,600 00
Primary School House, of brick, on Middlesex Street, near Hamilton Corporation, for four Schools,.....	5,000 00
Primary School House, of wood, School Street,.....	400 00
Primary School House, of wood, High Street, two schools,..	3,600 00
Primary School House of wood Tilden Street,.....	1,500 00
Primary School House, of wood, Grand Street,.....	675 00
Primary School House, of brick, Paige Street,.....	2,300 00
Primary School House, of wood, Worthen Street,.....	2,400 00
Primary School House, of wood, Moody Street,.....	1,300 00
Primary School House, of wood, Carter Street,.....	1,200 00
Primary School House, of wood, Charles Street,.....	1,650 00
Primary School House, of wood, Fayette Street,.....	3,200 00
Primary School House, of wood, Powell Street,.....	475 00
<i>Amount carried forward,.....</i>	<i>\$328,600 00</i>

<i>Amount brought forward</i> ,.....	\$328,600 00
Primary School House, of wood, for two schools, Cabot Street,	2,600 00
Primary School House, of wood, Rock Street,.....	2,100 00
Primary School House, of wood, Salem Street, near Common Avenue,.....	1,500 00
Primary School House, of wood, for three schools, Adams St.,	3,500 00
Primary School House, of wood, for two schools, on the corner of Adams and Cross Streets,.....	3,600 00
Primary School House, of brick, in Centralville,.....	800 00
Primary School House, of wood, in Centralville,.....	2,500 00
Primary School House, of wood, on Chapel Street,.....	2,600 00
Two Primary School Houses, of wood, on Central and Chapel Streets,.....	3,750 00
Primary School House, of brick, on Howard Street,.....	4,000 00
Engine House and Ward Room, on Fayette Street,.....	2,900 00
Hook and Ladder House, of brick, on Middle Street,.....	3,000 00
Double Engine House, on Middle Street,.....	10,250 00
Engine House, of brick, on Middlesex Street,.....	6,550 00
Engine House, of wood, at Ayer's City,.....	500 00
Engine House, of wood, on Central Street,.....	1,700 00
Engine House, of wood, on Carter Street,.....	900 00
Engine and Hose House, of brick, on Warren Street,.....	1,800 00
Watch House, of brick, on Middle Street,.....	3,000 00
Gun House and Ward Room, of wood, on South Street,.....	1,200 00
Lot of Land on School Street, 280 38-100 feet,.....	16 82
Lot of land on the corner of Willie and Fletcher Streets, for Ward Room and Engine House,.....	612 00
Stable and Land, on Western Avenue,.....	4,400 00
Three acres of land, near the Pound,.....	450 00
One and a third acres of land, near Chelmsford Road,.....	150 00
Public Landing, rear of Market House, exclusive of the Landing set off by the Locks and Canals,.....	1,250 00
Lot of Land in Dracut,.....	800 00
Lot of Land, gravel lot, in Centralville,.....	190 00
Lot of Land and Stone Ledge, purchased in 1866, on the east side of Fletcher Street,.....	1,956 68
Lot of Land on the east side of Fletcher Street, 3,537 7-100 feet,.....	353 72
	<hr/>
	\$397,529 22
	<hr/>

PERSONAL PROPERTY OWNED BY THE CITY.

LIST OF PERSONAL PROPERTY IN THE CARE OF LUTHER RICHARDS, SUPERINTENDENT OF STREETS,
JANUARY 1, 1867:—

12 Horses,	\$2,600 00
13 Harnesses,	300 00
8 Carts, \$500.00 ; 3 Wagons, \$300.00,	800 00
1 pair Draft wheels,	75 00
9 Sleds,	320 00
50 feet Flagging, at 35 cents per foot,	17 50
1 Hydrant,	20 00
28 cords of Wood, at \$8.00 per cord,	224 00
53 cords of Wood, at \$6.00 per cord,	318 00
300 cords of Wood, at \$4.00 per cord,	1,200 00
50 cords of Wood, at \$2.25 per cord,	112 50
120 tons of coal, at \$11.50 per ton,	1,380 00
4 tons of hay, at \$25.00 per ton,	100 00
15,000 Brick, at \$11.00 per M.,	165 00
1,000 feet of Lumber,	35 00
500 feet of Oak,	15 00
1 stone-cutter and Engine, &c.,	2,200 00
1 Stone Roller,	126 00
1 Horse Wagon, \$25.00 ; 1 Wagon Harness, \$25.00, ..	50 00
1 Sleigh,	25 00
30 Lanterns, at \$2.00 each,	60 00
12 Shovels, \$12.00 ; 24 Snow Shovels, \$24.00, ...	36 00
7 Picks, \$7.00 ; 6 Iron Bars, \$10.00,	17 00
200 lbs. Drills, (steel,)	30 00
6 Striking Hammers,	12 00
1 Stone Hammer, \$1.00 ; 4 Stone Rakes, \$4.00, ..	5 00
4 Hoes, \$3.00 ; 1 Plow, \$8.00,	11 00
12 Hay-rakes, \$3.00 ; 6 Hay-forks, \$6.00,	9 00
3 Scythes and Snaths,	5 00
4 Draft Chains, \$8.00 ; 1 Stone Drag, \$5.00,	13 00
1 Stone Truck Drag, \$25.00 ; 3 Axes, \$4.50,	29 50
	\$10,310 50
<i>Amount carried forward,</i>	<i>\$10,310 50</i>

Amount brought forward,.....\$10,310 50

LIST OF PERSONAL PROPERTY BELONGING TO THE
CITY, IN CARE OF LORENZO PHELPS, SUPERIN-
TENDENT OF ALMS-HOUSE AND HOUSE OF REF-
ORMATION FOR JUVENILE OFFENDERS, JANUA-
RY 1, 1867:—

1 Span Team Horses, \$600.00; 1 Horse, \$250.00, \$	850 00
1 Pair of Oxen, \$350.00; 7 Cows, \$60.00 each, ..	770 00
20 Pigs, \$10.00 each; 5 Hogs, at \$30.00, each, ...	350 00
30 Tons English Hay, at \$30.00 per ton,	900 00
15 Tons Meadow Hay, at \$14.00 per ton,	210 00
8 Tons Oat Straw, at \$15.00 per ton,	120 00
30 Tons Coal, at \$11.25 per ton,	337 50
Lot Corn Fodder,	40 00
700 Bushels Potatoes, at 70 cents per bushel,	490 00
225 Bushels Corn, at \$1.50 per bushel,	337 50
10 Bushels Beans, at \$3.75 per bushel,	37 50
8 Bushels Rye, at \$1.00 per bushel,	8 00
70 Cords Wood, at \$6.00 per cord,	420 00
3200 Lbs. Pork and Hams, at 14 cents per lb.,	480 00
200 Lbs. Beef and Mutton, at 8 cents per lb.,	16 00
Lot of Groceries,	300 00
30 Hens, at 50 cents each,	15 00
Lot of Tools in Carpenter's Shop,	40 00
Lot of Tools and Iron in Blacksmith's Shop,	200 00
1 Grindstone, \$6.00; 1 Ox-drag, \$4.00,	10 00
Lot of Coffins, \$300.00; Lot of Furniture, \$500.00	800 00
Lot of Clothing and Bedding,	1200 00
1 Two-Horse Wagon, \$35; 1 One-Horse Wagon, \$10,	45 00
1 Night-soil Wagon,	100 00
2 Express Wagons, \$100; 1 Carryall, \$300,	400 00
1 Sleigh, \$60.00; 1 Sleigh, \$15.00,	75 00
1 Pair Double Harness, 2 Single do., and 1 Cart do.,	80 00
1 Mowing Machine, \$50.00; 1 Horse Rake, \$25.00,	75 00
1 Horse-Cart and 2 Ox-Carts,	70 00
1 D. Harness and 8 Chains,	10 00
7 Seythes and Snaths,	8 50
3 Yokes and 12 Chains,	25 00
12 Hay Forks and 12 Rakes,	12 00
20 Hoes, 4 Iron Bars and 6 Axes,	18 00
4 Plows, 12 Shovels, 3 Manure Forks, 1 Cultivator,	35 00
3 Harrows and 2 Cradles and Seythe,	30 00
Lot Paints, Oil and Hot-bed Glass,	60 00
Lot Curry Combs and Brushes,	2 00
450 Bushels Beets, at 40 cents per bushel,	180 00
1000 Cabbages, at 5 cents each,	50 00
2 Tons Carrots, at \$20.00 per ton,	40 00
	<hr/> 9,247 00

Amount carried forward,.....\$19,557 50

Amount brought forward,.....\$19,557 50

LIST OF PERSONAL PROPERTY UNDER THE CHARGE OF
BICKFORD LANG, CITY MARSHAL, AT POLICE
COURT ROOM, POLICE OFFICE AND POLICE
STATION, JANUARY 1, 1867:—

25 Chairs in guard-room,.....	\$ 31 25
31 Cane-seat Chairs,.....	15 50
6 Wood Chairs,.....	1 50
8 Arm Chairs,.....	10 00
10 Desks,.....	60 00
12 Tables,.....	60 00
1 Clock,.....	8 00
1 Slate,.....	25
1 Stove-pipe and Pot,.....	5 00
Beds and Bedding,.....	50 00
2 Mirrors,.....	2 00
18 Settees,.....	36 00
16 Pails and Buckets,.....	6 00
1 Seal of Court,.....	12 00
1 Sofa,.....	5 00
1 Wardrobe,.....	6 00
2 Fire Safes,.....	65 00
Carpeting,.....	20 00
57 Police Badges,.....	110 00
2 Pair Hand-cuffs,.....	3 00
32 Police Clubs,.....	8 00
32 Police Rattles,.....	32 00
Window Curtains and Fixtures,.....	3 00
8 Spittoons,.....	1 25
10 Inkstands,.....	2 00
2 Iron Rakes,.....	50
1 Wheelbarrow,.....	2 00
1 Coal-sifter,.....	50
3 Shovels,.....	1 50
Grappling Irons,.....	4 00
8 Tin Dippers,.....	25
2 Dust-pans, 2 Brooms and 1 Brush,.....	1 00
1 Set Police Buttons, with Dies,.....	98 00
25 Tons Coal,.....	250 00
	<hr/>
	910 50
<i>Amount carried forward</i> ,.....	\$20,468 00

Amount brought forward,..... \$20,468 00

LIST OF PERSONAL PROPERTY IN THE CARE OF LOREN-
ZO G. HOWE, SUPERINTENDENT OF PUBLIC
BUILDINGS, AT THE CITY'S SHOP, JANUARY
1, 1867.

500 feet Birch Boards,	\$ 18 00	
300 feet Joists,	7 50	
4000 feet Northern Boards—dressed,	120 00	
200 feet old Lumber,	2 00	
105 Chestnut Posts,	21 00	
Hardware,	40 00	
Glass,	36 00	
Castings,	90 00	
Desks unfinished,	100 00	
Tools,	17 00	
Tinware,	6 00	
1 Clock,	1 00	
3 Pails,	1 20	
4 Window Brushes,	2 00	
3 Long-handled Brushes,	3 00	
4 Scrub Brushes,	2 00	
7 Mop Handles,	1 75	
69 boxes Crayons,	27 59	
10 Thermometers,	4 50	
12 Floor Mats,	36 00	
12 small Stove Shovels,	3 00	
10 Brooms,	3 64	
350 lbs. of Grates,	17 50	
1 Glazier's Diamond,	5 00	
		565 68
Furniture in Government Building, Huntington and Jackson Halls,	4,500 00	
In care of Undertakers, hearses, &c.,	1,350 00	
In care of Weare Clifford, Chief Engineer of the Fire Department,	32,425 00	
Furniture in School Houses, not included in the Real Estate,	7,750 00	
In care of Superintendent of Street Lamps,	5,040 09	
Bell in High Street Church tower,	500 00	
Cast-steel bell on Police Court Building,	900 00	
Flag-staffs,	1,000 00	
		53,465 09
		<u>\$74,498 77</u>

COMMON SEWERS AND RESERVOIRS, BUILT BY THE CITY, AND COST OF THE SAME.

From the Merrimack Canal through Market Street to Concord River,.....	\$ 6,708 19
From the Merrimack Canal, westerly, and from the Western Canal, easterly, through Lowell Street, crossing under Merrimack Street, through Tilden Street, to the Merrimack River,.....	13,800 00
On Central Street, from Charles Street to Union Street,....	231 31
On Alder and Bartlett Streets, from Livermore Street to Merrimack River,.....	714 50
On Merrimack Street, from Cabot Street, westerly, to the west side of Austin Street, also from Race Street to Suffolk Street,.....	635 58
On Race Street, from the northerly side of the Northern Canal to Merrimack Street,.....	865 87
On Moody Street, from Race Street, westerly, to the west side of Austin Street,.....	855 36
On Dodge Street, from Race Street to Suffolk Street,.....	184 68
On Cabot Street, from a point near Northern Canal, southerly to Salem Street,.....	539 95
On Middlesex Street, from Pearl Street, westerly 200 feet,..	485 22
On Church and Lawrence Streets, from Concord River to George Street, and from Church to Tyler Street,....	1,247 31
From south side of City Hall, back of Merrimack Street, to Unitarian Church, to Middle Street, through Central Street, entering the sewer at the corner of Central and Market Streets,.....	1,112 00
Through Middle Street, from Central Street to Merrimack Canal,.....	1,498 92
From Garnet Street to Concord River, near Warren Street,..	4,980 37
On Jefferson Street, from Lowell to Lewis Street,.....	385 00
On Gorham Street, from Middlesex to Charles Street,.....	924 93
On Willow Street,.....	297 00
On Merrimack Street, from Nesmith to Fayette Streets,....	935 35
On Merrimack and Prescott Streets,.....	503 62
<i>Amount carried forward,.....</i>	<u>\$36,905 16</u>

<i>Amount brought forward,</i>	\$36,905	16
On Merrimack Street, near Colburn Street,.....	255	30
On Garnet Street,.....	102	50
From Pawtucket Canal, through Middlesex St., to Grand St.,	526	11
On Suffolk Street,.....	1,137	33
On Bartlett Street,.....	350	40
On Gorham Street, from Union to Auburn Street,.....	625	94
Through Middlesex to Queen St., and Queen to Somerset St.,	529	07
On Fenwick Street,.....	526	60
On Dummer Street, from Lowell to Mechanic Street,.....	349	48
On Worthen Street, from Lowell to Mechanic Street,.....	563	83
On Lee Street to John Street, and through John to Vine Street and passage-way east of the Museum; also a drain through John Street Avenue,.....	555	23
On Middlesex Street,.....	352	12
On Alder Street,.....	249	52
From Central, through Charles and Lawrence Streets to Con- cord River,.....	2,090	11
On Hurd Street,.....	703	76
On Middlesex Place,.....	281	49
On Merrimack Street, from Race Street, westerly,.....	41	66
On Lowell Street, from Suffolk to Cabot Street,.....	508	37
On Central Street, from Union to Ames Street,.....	518	34
Through part of Andover, through Clay, and partly through Oak and High Streets,.....	2,269	31
Through Elliot to Appleton Street, westerly to Thorndike St.,	1,455	66
On Merrimack Street, from Tremont to Hanover Street,....	317	75
On Middlesex Street, from Grand Street, westerly,.....	187	81
On Ash Street,.....	147	20
On Dutton Street,.....	493	24
On Chestnut Street,.....	340	69
On Adams Street,.....	885	80
On Union and Chapel Streets,.....	724	85
On Third Street,.....	748	16
On Kirk Avenue,.....	238	64
On East Merrimack Street,.....	231	43
On Bridge Street,.....	1,500	00
On Branch Street,.....	152	44
On Water Street,.....	383	54
On Salem Street,.....	217	53
On Jackson Street,.....	185	89
On Fourth Street,.....	927	98
On Adams and Lagrange Streets,.....	1,257	47
On Fayette Street,.....	192	95
On Hanover Street,.....	85	85
On Merrimack Street, from Decatur Street, westerly,.....	136	55
On Andover Street,.....	418	99
On Tyler Street,.....	468	24
<i>Amount carried forward,</i>	\$61,140	29

<i>Amount brought forward,</i>	\$61,140 29
On Branch Street,.....	764 58
On Fifth Street,.....	469 41
On Favor Street,.....	132 22
On Dutton Street, from Lowell Street, westerly,.....	234 51
On Suffolk, from Cross Street, southerly,.....	459 32
On River Street,.....	301 30
On Andover Street,.....	490 00
On Pawtucket Street,.....	423 00
On Seventh Street,.....	282 00
On Cady and Lawrence Streets,.....	620 92
On North Street,.....	331 80
On Warren Street, sixty feet from Central Street,.....	181 30
On John Street Avenue,.....	156 44
On Bridge Street, commencing at Tenth Street, to Ferry Lane Road,.....	258 42
	<hr/>
	\$66,245 51

R E S E R V O I R S .

On Union Street, at foot of Chapel Street,.....	680 00
On Tyler Street, at junction with George Street,.....	669 00
On Chestnut Street, at junction with Willow Street,.....	763 00
On Cross Street,.....	675 00
On East Merrimack Street, at junction with High Street, and one on Salem Street, near Common Street, both,.....	1,964 82
On Central, at the foot of Elm Street,.....	600 00
In Centralville,.....	650 00
On Branch Street,.....	588 86
On Fourth Street, Centralville,.....	397 88
On Westford Street,.....	280 48
On Chapel Street,.....	474 21
On Varney Street,.....	474 21
	<hr/>
	\$74,862 97

W A T E R P I P E .

Expended in 1851,.....	\$8,304 12
“ 1852,.....	3,934 15
“ 1853,.....	221 56
“ 1857,.....	4,572 45
	<hr/>
	\$17,032 28

FIRE DEPARTMENT.

The following schedule, furnished by the Chief Engineer, shows the number of Engines and Firemen, and condition of the Apparatus, belonging to the Fire Department, with the number of feet of Water Pipe laid, and the number of Hydrants:—

GEN. BUTLER STEAM FIRE ENGINE COMPANY, NO. 1.

11 MEMBERS.—HOUSE, MIDDLE STREET.

Apparatus and property owned by the City, in care of this Company.

This Steam Engine was built by William Jeffers, of Pawtucket R. I., and has one steam cylinder 10 inches in diameter, $5\frac{3}{4}$ inch water cylinder, and $7\frac{1}{2}$ inch stroke, 312 inch tubes of iron in boiler, 32 feet of suction hose, with hydrant couplings. Weight of Engine, when loaded, is 5,600 lbs. Hose carriage, built by Samuel Convers, of Lowell, in 1866, carrying 600 feet of hose, drawn by hand. 1,450 feet of $2\frac{1}{2}$ inch leading hose in good condition; 6 reducing couplings; 2 axes; 1 pair horses; 1 pair harnesses; 4 blankets; 1 pair lead bars; 1 whiffletree; 3 beds and bedding; 1 bureau; 18 cane-seat chairs; 6 common do.; 1 table; 1 mirror; 1 wood stove. This Company was organized and put into service May 1st, 1866.

TORRENT STEAM FIRE ENGINE COMPANY, NO. 2.

14 MEMBERS.—HOUSE, MIDDLESEX STREET.

Apparatus and property owned by the City, in care of this Company.

This Company was organized and put in service May 1st, 1861. This Steam Engine was built by Silsby, Mynderse & Co., Seneca Falls, New York, and is of the rotary principle, with 12 inch engine, 6 inch pump. In 1866 a new boiler was built by Hunneman & Co., Roxbury, which is of the most improved pattern. Weight of Engine when loaded, 8,300 lbs. 30 feet suction hose, with hydrant couplings; hose carriage, drawn by horse, carrying 800 feet of hose, built in 1861 by J. Jenkins, Lowell; 2,100 feet $2\frac{1}{2}$ inch leading hose, in good condition; 2 axes; 10 reducing couplings; 1 patent spreading nozzle; 14 chairs; 1 table; 2 stoves; 1 bureau; 3 beds and bedding; 2 mirrors; 1 pair horses; 1 pair harnesses; 1 single harness; 4 blankets; 1 pair lead bars; and all necessary tools for cleaning of horses and repairs of Engine.

WAMESIT STEAM FIRE ENGINE COMPENY, NO. 3.

15 MEMBERS.—HOUSE, MIDDLE STREET.

Apparatus and property owned by the City, in care of this Company.

This Company was organized and put in service in October, 1859, then having in charge the Steam Engine built by Silsby, Mynderse & Co., Seneca Falls, New York, now used as a relief Engine. Occupying the House on Warren Street, on the 1st of April, 1866, they were removed to the new House on Middle Street. On the 9th of November, 1866, they were given in charge of a new Steamer, built by Hunneman & Co., of Roxbury. This Engine has two double acting steam cylinders, 8 inches diameter and 8 inch stroke, and two double acting flange pumps, 4 $\frac{3}{4}$ inches diameter and 8 inch stroke. The pumps are so arranged that they can be worked separately in case of an accident to either of them. There are 276 iron flues in the boiler and will make steam enough to run the engine in five minutes. Weight when loaded, 7,650 lbs. 30 feet suction hose, with hydrant couplings; hose carriage, built by J. Jenkins, Lowell, in 1866, drawn by hand, carrying 1,000 feet of hose; six reducing couplings; 2 axes; 1 patent spreading nozzle; 2,450 feet 2 $\frac{1}{2}$ inch leading hose, in good condition; 6 wooden chairs; 18 cane-seat chairs; 2 mirrors; 2 desks; 1 bureau; 3 beds and bedding; 1 wood stove; 2 jack screws; 1 pair horses; 1 pair harnesses; 2 blankets; 1 pair lead bars; 2 whiffletrees; and all necessary articles for cleaning and care of horses and repairs of Engine.

The following articles are owned by the City and are used by both Companies: 1 large stove; 1 clock; 50 feet of 1 $\frac{1}{4}$ inch rubber hose and pipe.

OCEAN HOSE COMPANY, NO. 1.

15 MEMBERS.—HOUSE, WARREN STREET.

Apparatus and property owned by the City, in care of this Company.

Hose carriage, built in 1853 by Hunneman & Co., Roxbury, drawn by hand, carrying 750 feet of hose; 700 feet of 2 $\frac{1}{2}$ inch hose, in good condition; 1,100 feet of 2 $\frac{1}{4}$ inch hose, of which 500 feet are not reliable; 1 patent spreading nozzle; 2 axes; 2 stoves; 1 copper boiler; 1 harness; 1 table; 4 chairs; 7 settees; 2 mirrors; 1 jack; 4 reducing couplings.

FRANKLIN HOOK AND LADDER COMPANY, NO. 1.

38 MEMBERS.—HOUSE, MIDDLE STREET.

Apparatus and property owned by the City, in care of this Company.

Hook and Ladder Carriage, built in 1856, by Samuel Convers, Lowell, carrying the following apparatus: 8 hooks; 12 props; 10 rakes; 8 pitchforks; 4 sledges; 4 axes; 6 stakes; 4 guy ropes, of 84 feet each; 200 feet of street rope; 16 ladders of the following lengths:—2 roof ladders, 18 feet each; 1 do. do. of 20 feet; 2 do. do. of 25 feet; 1 do. do. of 28 feet; 1 ladder of 12 feet; 1 do. of 24 feet; 4 do. of 33 feet; 2 butt ladders of 28 feet each; two tip ladders of 30 feet each. By joining the butts and tips together they are enabled to raise ladders of 58 feet in length.

EXCELSIOR ENGINE COMPANY, NO. 1.

38 MEMBERS.—HOUSE, CENTRAL STREET.

Apparatus and property owned by the City, in care of this Company.

Engine and Hose Carriage, built in 1850, by Hunneman & Co., Roxbury. Diameter of cylinder, $5\frac{1}{2}$ inches; stroke of piston, 16 inches. 25 feet of suction hose; 1,050 feet of leading hose—700 feet not reliable; 2 stoves; 9 settees; 1 table; 1 mirror; 1 ladder; 2 reducing couplings; 9 chairs.

TIGER ENGINE COMPANY, NO. 5.

38 MEMBERS.—HOUSE, COLBURN STREET.

Apparatus and property owned by the City, in care of this Company.

Engine and Hose Carriage, built in 1854, by Hunneman & Co., Roxbury. Diameter of cylinders, $5\frac{1}{2}$ inches; stroke of piston, 16 inches. 26 feet of suction hose; 800 feet of leading hose—300 feet not reliable; 1 mirror; 2 trumpets; 3 stoves; 1 coal hod; 1 shovel; 11 settees; 1 table; 4 chairs; 2 reducing couplings; 2 axes.

MAZEPPA ENGINE COMPANY, No. 10.

38 MEMBERS.—HOUSE, FAYETTE STREET.

Apparatus and property owned by the City, in care of this Company.

Engine and Hose Carriage, built in 1854, by Hunneman & Co., Roxbury. Diameter of cylinders, $5\frac{1}{2}$ inches; stroke of piston, 16 inches. 24 feet of suction hose; 800 feet of leading hose, in good condition; 2 axes; 2 reducing couplings; 3 stoves; 1 coal hod; 1 shovel; 1 table; 7 settees; 8 chairs; 1 mirror; 1 ladder.

FIRE APPARATUS AT STATIONARY POINTS,

To be used by Volunteers when required.

ROCKET ENGINE, No. 2.—*House, Ayer's City.* Hunneman & Co. Engine, owned by city. Diameter of cylinders, $5\frac{1}{2}$ inches; 16 inch stroke of piston; 450 feet of leading hose; 26 feet suction hose.

ENGINE No. 12.—*House, Fourth Street, Centralville.* Hunneman & Co. Engine, owned by city. Diameter of cylinders, $5\frac{1}{2}$ inches; 16 inch stroke of piston; 450 feet leading hose; 24 feet suction hose; 1 ladder.

DELUGE ENGINE, No. 14.—*House, Carter Street.* Hunneman & Co. Engine, owned by Bleachery Company. Diameter of cylinders, $5\frac{1}{2}$ inches; 16 inch stroke of piston; 800 feet leading hose; 26 feet suction hose.

FIRE KING ENGINE, No. 6.—*Kept at the Poor Farm.* Hunneman & Co. Engine, owned by city. Diameter of cylinders $3\frac{1}{2}$ inches, 12 inch stroke.

STEAMER FORMERLY USED BY WAMESIT COMPANY, No. 3.—*House on Warren Street.* Silsby, Mynderse & Co., builders, Seneca Falls, N. Y. Built in 1859, and is on the rotary principle; 12 inch engine; 6 inch pump; 31 feet suction hose.

6 ladders in Hook and Ladder House; 350 feet of chain in Hook and Ladder House.

RECAPITULATION.

7 Engineers; 207 Firemen; 7 Hand Engines; 4 Steam Fire Engines; 6,700 feet 2½ inch Leading Hose; 5,700 feet 2¼ inch Leading Hose; 274 feet Suction Hose; 11 Hose Carriages; 1 Hook and Ladder Carriage; 1 Fuel Wagon; 6 horses; 3 pairs Harnesses; 2 single Harnesses; 8 Hooks; 25 Ladders; 12 Props; 10 Rakes; 8 Pitchforks; 4 Sledges; 22 Axes; 200 feet Street Rope; 350 feet Chain; 32 Reducing Couplings; 3 Patent Spreading Nozzles; 9 Beds and Bedding; 87 Chairs, 34 Settees, 10 Mirrors, 15 Stoves, 7 tables, 3 Bureaus, 2 Trumpets.

The apparatus is all owned by the City, with the exception of Engine No. 14, which is owned by the Bleachery Company. The several Companies are furnished with Spanners, Lanterns, Signal Lanterns, Belts, Axes, Crowbars, Shovels, and all necessary apparatus for the performance of their respective duties. There are 13 Fire Buckets at the Market House, 12 at the Police Court Rooms, and 8 at the City Government Building.

LENGTH OF WATER PIPE LAID IN THE CITY.

ALSO, SIZE OF PIPE AND NUMBER OF HYDRANTS.

	Length of Pipe.	No. of Hydrants.	Size of Pipe.
Middlesex Street,.....	3,680	13	6 in.
Central Street, from Merrimack to Market,..	430	2	6 "
Central Street, from Middlesex to Church,..	240	1	4 "
Central Street, from Warren to Middlesex,..	565	4	6 "
Gorham Street,.....	1,950	7	4 "
Bridge Street,.....	475	4	8 "
French Street,.....	890	4	4 "
Kirk Street,.....	770	4	4 "
Merrimack Street, from Bridge to Cabot,...	3,370	13	12 "
Merrimack Street, from Cabot westerly,...	440	2	8 "
Cabot Street,.....	745	4	12 "
Adams Street,.....	2,255	11	8 "
Cushing Street,.....	920	5	8 "
Merrimack to Middle Sts., City Hall Avenue,	220	2	4 "
Total,.....	16,950 ft.	76	

* 1,500 feet not reliable.

PROPERTY OWNED BY THE CITY, NOT AVAILABLE.

Old Burial Ground on School Street.
Burial Ground on the Boston Road, south of the Railroad.
Burial Ground on the same Road, south of the last named.

RECAPITULATION OF ASSETS OF THE CITY.

Real Estate,.....	\$397,529 22
Personal Property, in care of Superintendent of Streets,...	10,310 50
Personal Property, in care of Superintendent of Almshouse,	9,247 00
Personal Property, in care of Superintendent of Street Lamps,	5,040 09
Personal Property, in care of Undertakers,.....	1,350 00
Personal Property, in care of Chief Engineer,.....	32,425 00
Personal Property, at Police Court Rooms, Police Office, and Police Station,.....	910 50
Personal Property, at the Government Building, Huntington and Jackson Halls,.....	4,500 00
Personal Property, in care of Superintendent of Public Buildings,.....	565 68
Personal Property, in School Houses,.....	7,750 00
Books in the City Library,.....	9,000 00
Debts due the City,.....	59,123 44
Bell in High Street Church Tower,.....	500 00
Cast-steel Bell,.....	900 00
Flag-staffs,	1,000 00
	\$540,151 43

LEASES AND RENTS OF PUBLIC BUILDINGS OWNED BY THE CITY.

	PER ANNUM.
Leased to Carleton & Hovey, two stores in the City Government Building, five years, from January 1, 1867, for.....	\$1,000 00
Rented to Alfred Gilman, one store, City Government Building,	450 00
Leased to B. C. Sargeant, one store, City Government Building,	450 00
Leased to Charles P. Talbot & Co., store and cellar in Market House Building, five years, from October 1, 1863, for..	480 00
Rented to County of Middlesex, Police Court Rooms, for.....	300 00
Rented to Commonwealth, for Armories,.....	600 00
	<u>\$3,280 00</u>

LANDS AND BUILDINGS FOR WHICH THE CITY PAYS RENT.

	PER ANNUM
The City pays to the Proprietors of Locks and Canals on Merrimack River, for the use and rent of reservoir water, in Belvidere,.....	\$750 00
Also, a privilege at Market House Landing,.....	1 00
The City hires of the Boston & Lowell Railroad Co., ground rent for Huntington and Jackson Hall Building, at....	450 00
The City pays the Merrimack Manufacturing Company, for rent of Primary School House, No. 12,.....	94 00
The City pays rent to the Merrimack Manufacturing Company, for Engine House on Colburn Street,.....	150 00
	<u>\$1,445 00</u>

GEORGE GARDNER, *Auditor.*

TREASURER'S ACCOUNT, 1866.

TREASURER'S OFFICE, CITY GOVERNMENT BUILDING,
Lowell, January 1, 1867.

TO THE HONORABLE CITY COUNCIL:

GENTLEMEN: I herewith respectfully submit the account of the Receipts and Payments for the financial year ending with December 31, 1866.

THOMAS G. GERRISH,
City Treasurer.

CITY OF LOWELL.

In Common Council, January 22, 1867.

Read and referred to the Joint Standing Committee on Accounts; sent up for concurrence.

GEO. GARDNER, Clerk Common Council.

In Board of Aldermen, January 22, 1867

Read and referred in concurrence.

J. H. McALVIN, City Clerk.

DR. CITY OF LOWELL *in account current with* THOS. G. GERRISH,

To amount paid Mayor's Drafts, charged the following accounts :—

Schools,.....	\$ 59,031 35
School Houses,.....	3,911 49
Roads and Bridges,.....	38,564 98
Police,.....	27,144 22
Paupers,....	13,276 31
Reserved Fund,.....	14,517 35
Fire Department,.....	47,355 79
Repairs Public Buildings,.....	2,469 27
Lighting,.....	8,624 90
Sewers and Drains,.....	61 49
Liquor Agency,.....	2,807 69
Printing and Advertising,.....	2,331 49
Salaries,.....	11,631 25
City Library,.....	1,492 95
Commons,.....	329 22
Interest on City Debt,.....	26,832 00
Relief Soldiers' Families,.....	599 00
On Resolution, State Aid,.....	35,845 00
Temporary Loan,.....	103,250 00
County Tax,.....	16,490 68
State Tax,.....	62,220 00
Militia Bounty, 1862,.....	5 00
Militia Bounty, 1866,.....	2,091 00
Balance in the Treasury, January 1, 1867,.....	123,169 31

\$604,071 74

City Treasurer, January 1 to December 31, 1866.

CR.

Balance in the Treasury, January 1, 1866,.....	\$ 58,306 72
By amount received and credited the following accounts:—	
Schools,.....	1,915 69
School Houses,.....	562 09
Roads and Bridges,.....	2,978 81
Police,.....	3,224 75
Paupers,.....	2,944 23
Reserved Fund,.....	8,572 07
Huntington Hall,.....	3,706 50
Jackson Hall,.....	147 00
Fire Department,.....	98 53
Repairs Public Buildings,.....	249 55
Sewers and Drains,.....	26 61
Liquor Agency,.....	2,902 52
City Library,.....	804 70
Commons,.....	31 34
Interest on City Debt,.....	518 50
Temporary Loan,.....	103,250 00
Corporation Tax, 1865.....	16,818 17
Corporation Tax, 1866,.....	15,784 04
Relief Soldiers' Families,.....	62,162 47
Taxes of 1859,.....	1 50
1861,	43 68
1862,	25 95
1863,	31 60
1864,	93 46
1865,	4,325 67
1866,	314,545 59
	<u>\$604,071 74</u>

THOMAS G. GERRISH, City Treasurer.

Lowell, January 1, 1867.

CITY OF LOWELL.

AUDITOR'S OFFICE,

In Committee on Accounts, 12th March, 1867.

The undersigned, being the Joint Standing Committee on Accounts, for the year eighteen hundred and sixty-seven, in pursuance of chapter first, section seventh, of the Ordinances of the City of Lowell, hereby certify that we have examined the foregoing account of Thomas G. Gerrish, City Treasurer, find the same correctly cast, and all payments and expenditures therein charged against the City of Lowell, sustained by proper vouchers.

We find there has been received into the Treasury from all sources, at sundry times within the fiscal year, including the balance on hand January 1st, 1866, the sum of six hundred and four thousand and seventy-one dollars and seventy-four cents, (\$604,071.74,) and there has been paid from the Treasury, during the same period, the sum of four hundred and eighty thousand, nine hundred and two dollars and forty-three cents, (\$480,902.43,) leaving a balance in the hands of the Treasurer, December 31st, 1866, of one hundred and twenty-three thousand, one hundred and sixty-nine dollars and thirty-one cents, (\$123,169 31.)

J. L. SARGENT,
A. W. BUTTRICK,
GEORGE S. CHENEY,
SILAS TYLER, JR.,
FRED'K T. NORTH,

Committee on Accounts.

In Common Council, March 12, 1867.

Read and accepted; sent up for concurrence.

GEO. GARDNER, Clerk Common Council.

In Board of Aldermen, March 12, 1867.

Read and accepted in concurrence.

J. H. MCALVIN, City Clerk.

I N D E X.

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County Tax,.....	87
Debts due the City,.....	91
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Liquor Agency,.....	81
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Notes due from the City,.....	86
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Printing and Advertising,.....	71
Paupers,.....	48
Permanent Loans,.....	83
Police,.....	54
Property not Available,.....	105
Real Estate,.....	92
Recapitulation of Assets,.....	105
Repairs of Public Buildings,.....	74
Reserved Fund,.....	39
Reservoirs.....	100
Relief of Soldiers' Families,.....	47
Roads and Bridges,.....	30
State Aid for Disabled Soldiers, Sailors, &c.,.....	90
Salaries,.....	78
Schools,.....	16
School Houses,.....	27
Setting Trees,.....	79
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REVISED ORDINANCES, CHAPTER 1, SECTION 5.

"No bill or claim against the City, other than judgments of the Judicial Courts, shall be allowed or passed by the Committee on Accounts, unless such bill or claim shall be *approved* or *certified* by some Agent, officer, or committee, authorized on behalf of the City, to make the contract, or cause the expenditure to be incurred; or unless such expenditure be expressly required by some specific vote of the Council."

CLAIMS AGAINST THE CITY.

IN COMMITTEE ON ACCOUNTS, January 10th, 1867.

Ordered, That hereafter the Quarterly Salary Bills, duly approved, be presented to the Auditor on or before the 25th day of March, June, September, and December, and that they be payable on the first day of the month next succeeding.

2nd.—That all Pauper bills be presented to the Auditor on or before the 28th day of each month.

3rd.—That all other bills be made up to include the last day of the month, and that, duly approved, they be presented to the Auditor on or before the third day of the following month, and be payable on the tenth.

All bills presented for payment must specify what the article or articles were for—and when for labor, where it was performed—with proper dates.

Items charged to different Appropriations should be made out on *separate* bills.

All bills not presented and approved as above, will lie over until the next month.

JOSEPH L. SARGENT,	} Committee.
ABNER W. BUTTRICK,	
FRED'K T. NORTH,	
SILAS TYLER, JR.,	
GEORGE S. CHENEY,	}

The AUDITOR'S OFFICE is in the City Government Building. Office Hours from 9 to 12, A. M., and from 2 to 5 o'clock, P. M.

TO PERSONS HAVING CLAIMS AGAINST THE CITY.

It is very desirable that bills presented for payment should specify what the article or articles were for—and when for labor, where it was performed—with proper dates.

If persons having bills against the City would be more careful in specifying particulars, it would enable the Auditor to prepare his Annual Report with much less trouble.

Items charged to different appropriations should be made out on *separate* bills.

GEORGE GARDNER, Auditor.

The amount due semi-annually to Members of the Fire Department becomes payable on and after the 10th of May and November.

The bounty to the Volunteer Militia is payable on the 1st of December, annually.

TREASURER'S OFFICE HOURS.

From 9, A. M., to 12, M., and from 2 to 4 P. M.; closed Saturday afternoons. From the time the Taxes are committed to December 31st, from 8, A. M., to 12, M.; from 2 to 5, and from 7 to 8, P. M., closed Wednesday and Thursday evenings.

City Document.

CITY OF LOWELL.



SALARIES

OF THE

Officers of the City of Lowell,

FOR THE YEAR

1867-8.

B. H. PENHALLOW, PRINTER, LOWELL.

CITY OF LOWELL.

IN THE YEAR EIGHTEEN HUNDRED AND SIXTY-SIX.

RESOLUTION ESTABLISHING THE SALARIES OF THE OFFICERS OF THE CITY OF LOWELL, FOR THE YEAR 1867-8.

Resolved by the Mayor, Aldermen, and Common Council of the City of Lowell, in City Council assembled, as follows :

THE SALARIES of the several City Officers, for the year beginning on the first Monday in January, one thousand eight hundred and sixty-seven, shall be as herein mentioned ; to be paid quarterly, unless herein otherwise ordered.

SECTION 1. The salary of the *Mayor* shall be at the rate of fifteen hundred dollars per annum.

SECTION 2. The salary of the *City Clerk* shall be at the rate of seventeen hundred dollars per annum, which shall be in full for his services, and all assistance he may require ; and he shall account for all sums of money received in his official capacity.

SECTION 3. The salary of the *City Treasurer* shall be at the rate of two thousand dollars per annum, for performing the duties of City Treasurer and Collector of Taxes ; and he shall account for all fees, moneys and commissions which he shall receive in said capacity.

SECTION 4. The salary of the *Auditor of Accounts* shall be at the rate of twelve hundred dollars per annum; and he shall account for all sums of money received by him in said capacity.

SECTION 5. The salary of the *City Solicitor* shall be at the rate of one thousand dollars per annum; and he shall account for all sums of money received by him in said capacity.

SECTION 6. The salary of the *Civil Engineer* shall be at the rate of eight hundred dollars per annum, which shall be in full for his services and those of an assistant.

SECTION 7. The salary of the *City Physician and Superintendent of Burials* shall be at the rate of six hundred dollars per annum; and he shall furnish all medicines used by him in performing the duties of said office.

SECTION 8. The salary of the *Librarian of the City Library* shall be at the rate of nine hundred dollars per annum, which shall be in full for his services and those of an assistant.

SECTION 9. The salary of the *Clerk of the Common Council* shall be at the rate of four hundred dollars per annum.

SECTION 10. The salary of the *Messenger of the City Council* shall be at the rate of nine hundred dollars per annum.

SECTION 11. The salary of the *Measurer of Wood and Bark* shall be at the rate of six hundred dollars per annum; and he shall account for all fees received by him in his official capacity, and shall pay the same into the Treasury monthly.

SECTION 12. The salary of the *Pound Keeper* shall be at the rate of twenty-five dollars per annum; and he shall account for all sums of money received by him in said capacity.

POLICE.

SECTION 13. The salary of the *City Marshal* shall be at the rate of fifteen hundred dollars per annum; and he is to furnish a horse and carriage for the use of the Marshal and his Deputy.

SECTION 14. The compensation of the *Deputy Marshal* and *Captain of the Night Watch* shall be at the rate of two dollars and seventy-five cents per day, each, payable monthly.

The compensation of the regular *Day Police* shall be at the rate of two dollars and twenty-five cents per day, payable monthly.

The compensation of the *Night Police and all other Police Officers*, shall be at the rate of two dollars and twenty-five cents per day, payable monthly.

SECTION 15. Police Officers acting as Tythingmen shall receive no extra compensation therefor. All fees received by the officers mentioned in the two preceding sections, for attendance as witnesses, or for any other service in an official capacity, shall be paid by the officer receiving the same, to the City Treasurer. *Provided, however*, that said Officers need not account for any fees for travel and attendance before the Supreme Judicial or the Superior Court, as witnesses.

SECTION 16. The *Standing Justice of the Police Court of Lowell* shall be paid at the rate of one hundred dollars per annum for receiving complaints, issuing warrants, and trying cases under the *forty-second Chapter of the General Statutes*.

SUPERINTENDENTS AND INSPECTORS.

SECTION 17. The salary of the *Superintendent of Streets* shall be at the rate of thirteen hundred dollars per annum.

SECTION 18. The salary of the *Superintendent of Public Schools* shall be at the rate of two thousand dollars per annum.

SECTION 19. The salary of the *Superintendent of Public Buildings* shall be at the rate of fifteen hundred dollars per annum, and he shall furnish a horse and carriage for the use of himself and the men under his charge, and shall engage in no other business or calling.

SECTION 20. The salary of the *Superintendent of City Scales* shall be sixty per centum of the fees received by him per annum; and he shall settle with the Treasurer monthly. The Mayor and Aldermen shall fix the salary of said Superintendent when he and the Measurer of Wood and Bark are one and the same person, at the rate of two hundred dollars per annum, in which case he shall account for all fees received by him in an official capacity, and shall pay the same into the Treasury monthly.

SECTION 21. The salary of the *Inspector of Milk* shall be at the rate of twenty-five dollars per annum.

ASSESSORS' DEPARTMENT.

SECTION 22. The salary of the *Board of Assessors*, including all clerk hire, shall be twenty-five hundred dollars per annum; and they shall distribute the tax bills.

FIRE DEPARTMENT.

The salaries of the several members of the Fire Department for the year beginning January first, one thousand eight hundred and sixty-seven, shall be as herein mentioned, to be paid semi-annually.

SECTION 23. The salary of the *Chief Engineer* shall be at the rate of fifteen hundred dollars per annum, he to devote his whole time to the service of the Fire Department, and engage in no other calling.

That of the *Assistant Engineers* shall be at the rate of one hundred and twenty-five dollars per annum.

The *Secretary of the Board of Engineers*, who shall be a member of the Board, shall receive twenty-five dollars additional, which shall be in full payment for all the services which may be required of him by the Mayor and Aldermen, the Chief Engineer, and the Board of Engineers.

The *Foremen* and *Clerks* of the respective Hand Engines, Hand Hose and Hook and Ladder Companies, and Steam Fire Engine Companies, shall be at the rate of eighty dollars each, per annum.

The *Stewards* of Hand Engine Companies shall be at the rate of one hundred dollars each, per annum.

The *Stewards* of the Hook and Ladder Companies shall be at the rate of ninety dollars each, per annum.

And the *Stewards* of Hydrant Companies shall be at the rate of one hundred and ten dollars per annum.

Said *Stewards* shall be members of the Companies for which they act, and said sums shall be in full payment for all their services as *Stewards* and *members* of Companies.

Drivers of Steamers, who shall perform all the duties of *Stewards*, shall be paid a sum not exceeding fifty dollars per month, payable monthly.

Hosemen of Steam Fire Engines, Hand Engines, and Hydrant Companies, shall be at the rate of seventy dollars per annum. All other *members* of Companies shall be at the rate of sixty-five dollars per annum.

Engineers of Steam Fire Engines shall be at the rate of three hundred dollars per annum.

Assistant Engineers shall be at the rate of one hundred dollars per annum.

Firemen of Steam Fire Engines, who do not perform the duties of *Stewards*, shall be at the rate of seventy-five dollars per annum; and *Stewards*, who do not act as *Firemen*, shall be at the rate of one hundred dollars per annum.

SECTION 24. Whenever any person in the employment of the City shall demand payment for his salary, or any part thereof, it shall be the duty of the Auditor and City Treasurer to deduct therefrom any and all sums of money due from such officer to the City.

IN BOARD OF ALDERMEN, November 27, 1866.

Passed.

J. G. PEABODY, Mayor.

IN COMMON COUNCIL, November 27, 1866.

Passed.

GUSTAVUS A. GERRY, President.

A true copy. Attest: JOHN H. McALVIN, City Clerk.

City Document.

CITY OF



LOWELL.

ANNUAL REPORT

OF THE

Directors of the City Library,

FOR THE YEAR

1 8 6 6 .

CITY OF LOWELL.

IN COMMON COUNCIL, December 28, 1866.

Received and read ; sent up.

GEO. GARDNER, *C. C. C.*

IN BOARD OF ALDERMEN, December 28, 1866.

Received and read.

J. H. McALVIN, *City Clerk.*

REPORT.

DIRECTORS' ROOM, CITY LIBRARY, }
December 17, 1866. }

TO THE CITY COUNCIL:—

The Directors of the City Library, in compliance with the requirements of the City Ordinances, respectfully submit the following Report of the condition of the Library for the current year:—

FINANCIAL CONDITION.

RECEIPTS.

Balance undrawn January 1, 1866,.....	\$468.80
Appropriation,.....	800.00
Subscriptions,.....	706.50
Catalogues,.....	81.80
Fines,.....	14.65
Old Papers,.....	1.00
Lost Books,.....	.75
	<hr/>
	\$2,073.50

EXPENDITURES.

Salary of Librarian,.....	\$300.00
Books,.....	447.35
Binding,.....	94.10
Advertising,.....	6.00
Printing,.....	47.53
Blank Books and Stationery,.....	35.25
Postage,.....	4.50
Manilla Paper,.....	27.72
Repairing Furniture,.....	20.50
Lowell Mutual Fire Insurance Company,.....	22.50
	<hr/>
	\$1,505.45
Balance undrawn,.....	<hr/>
	\$568.05

CONDITION OF THE LIBRARY.

Volumes added by purchase during the year	232
Volumes added by donation	37
Whole number added	269
Volumes in Library as per last Report	12,411
Present number of volumes.....	12,680
Volumes lost and not paid for.....	8
Estimated value of the same.....	\$4.00
New subscribers during the year.....	797
Non-resident subscribers.....	15
Whole number of subscribers	1,397
Number of volumes delivered.....	50,680
Average daily number delivered.....	188

Soon after the organization of the present City Council, and before all of the Directors were elected, those chosen were called together to provide for an extraordinary emergency. During the cold night of January 8th of the present year, by the bursting of a steam pipe in the Directors' Room, the apartment was deluged with steam, which badly damaged the books, pictures and furniture in the room, and involved a loss of about \$100. The furniture had to be repaired, and many of the books re-bound. A committee of your body, who were instructed to inquire into the cause of the accident, reported that the damage was \$113, and that no blame was attached to any person. This unforeseen accident, of course, increased the expenditures for the year.

In selecting books the Directors have exercised due care ; they have endeavored to meet the wants of patrons of the Library without being extravagant. Several standard works of great value have been placed on the shelves, while in other cases it was deemed necessary to select volumes of an ephemeral nature, though everything of doubtful moral tendency has been discarded.

The number of subscribers is 107 more than last year, and exceeds the number in 1864 by 384. The number is even 58 more than in 1860, when unusual efforts were made to increase it by canvassing the city, and publishing the names of volumes added monthly to the Library in the public papers. The number of volumes delivered is 680 more than last year, and about 6800 over that of 1864. The receipts from subscribers is also larger than in any former year of the existence of the Library, exceeding those of 1860 by \$40.50. It is hardly necessary to add, after the statistics given, that the Library is now enjoying its greatest degree of prosperity. There are hundreds, probably thousands, not now subscribers, who would be greatly benefited by the Library, could they be induced to become its patrons. What influence the Library may have had to lessen crime in this city is not known; but while the number of subscribers was 277 more in 1865 than in 1864, the number of arrests was 142 less. We make no argument; only give the figures.

The subject of making the Library free has been discussed in former reports, to which we propose to add nothing, only coinciding in the opinion of last year's Board, that it is not expedient while the Library remains in its present location.

It is believed by many that a Reading Room in Lowell, as nearly free as the Library, would be a public blessing. As a Reading Room is always associated in idea, if not always in reality, with a Library, we may not be transcending the sphere of duty assigned us in giving our views on the

subject. We believe that such an institution can only be permanent by being made a subject of municipal creation and aid, as private munificence might wear out in time, and the institution fail when accomplishing its greatest good. It is true that young men can obtain papers very cheap at the periodical stores, and for half a dime one can read his own sheet; but two-thirds of the young men who come to this city from the New England States, — all out of Massachusetts, — can purchase no paper familiar to them, because it is from home. If the young men who come here from Maine, New Hampshire and Vermont could visit a place where they could find a paper published at the capital, and in one or two other localities of their respective native States, such a place would soon become to them one of habitual resort; they would be more contented while here, and the chances would be greater that they would become permanent and valuable citizens, while there would be less inducement to frequent places of questionable character for amusement and recreation. This subject admits of extended argument, but without dwelling farther upon it, we would suggest that if measures are ever taken to procure a better locality for the Library, it be done with a view to have a Reading Room connected therewith.

The Library has been favored during the year with donations of valuable books and other documents from citizens and others, for which the thanks of the Directors, in behalf of themselves and the patrons of the institution, are hereby returned to the following named individuals and organizations : —

	Books.	Pamphlets.
Allen, Nathan, M. D.,.....	1	.
Boutwell, Hon. George S.,	6	13
City Library, Springfield, Mass.,.....	.	1
City of Lowell,.....	1	.
Cooper Institute, New York City,.....	.	1
Cowan, Hon. E.,.....	1	.
Fitchburg Library, Fitchburg, Mass.,.....	.	1
Fox, Hon. G. V.,.....	3	2
Mercantile Library Association, Boston, Mass., .....	.	1
Mercantile Library Association, Philadelphia, Pa.,.....	.	1
Mercantile Library Association, San Francisco, Cal.,.....	.	1
Peabody Institute, South Danvers, Mass.,.....	.	1
Phipps, Abner J., Esq.,.....	1	.
Powers, Joel, Esq.,.....	.	1
Public Library, Boston, Mass.,	1	1
Public Library, Charlestown, Mass.,.....	.	1
Public Library, Fall River, Mass.,.....	.	1
Public Library, Manchester, N. H.,.....	.	1
Public Library, New Bedford, Mass.,.....	.	1
Public Library, Waltham, Mass., .....	.	1
Public Library, Worcester, Mass.,.....	.	1
Rennselaer Polytechnic Institute, Troy, N. Y.,.....	.	1
Sibley, John L., A. M., Cambridge, Mass.,.....	.	1
Spofford, A. R., A. M., Washington, D. C.,.....	4	.
Sumner, Hon. Charles.....	13	5
Sweet, John, Esq., San Francisco, Cal.,.....	.	1
Wilson, Hon. Henry,.....	6	.
Wood, Rev. Horatio,.....	.	1
Young Men's Association, Buffalo, N. Y.,.....	.	1
	<hr/> 37	<hr/> 40

There has also been placed in the Directors' Room a valuable memento of the late Rebellion, the nature and character of which is indicated by the inscription, of which the following is a copy : —

" Piece of the First Monitor, removed after her battle with the Rebel Steamer Merrimac, in Hampton Roads, March 9th, 1862. Presented to the City of Lowell, by G. V. Fox, Assistant Secretary of the Navy, 1866."

It is the opinion of the Directors that the interests of the City and of the Library would be enhanced by a change in the Ordinance relating to the City Library, so as to provide that the Directors shall be elected to serve for two years, one half to retire annually, same as in the case of the School Committee. By the resignation of Mr. George Wilkins, last July, in consequence of his removal from the State, not a member of last year's Board of Directors is in office now, with the exception of the Mayor.

The Directors take pleasure in commending Mr. George C. Edwards, the Librarian, who we have ever found attentive and pleasant, and against whom we have heard no word of complaint from subscribers or others.

Hoping that the Library will receive the fostering care of future City Councils, as it has up to this time, and that each succeeding year will find it increasing in usefulness to the citizens of Lowell, the foregoing is submitted for your consideration and that of your immediate successors.

J. G. PEABODY,	} <i>Directors.</i>
G. A. GERRY,	
JACOB ROGERS,	
WILLIAM G. MORSE,	
SAMUEL A. McPHETRES,	
JOHN A. BUTTRICK,	
CHARLES HUBBARD,	
SAMUEL M. CHASE,	

CITY DOCUMENT.

CITY OF



LOWELL.

REPORT
OF THE
CITY SOLICITOR,

FOR THE YEAR ENDING FEBRUARY 28,

1867.

CITY OF LOWELL.

IN COMMON COUNCIL, March 12, 1867.

Read and sent up to Board of Aldermen.

GEO. GARDNER, *C. C. C.*

IN BOARD OF ALDERMEN, March 12, 1867.

Received and read.

J. H. McALVIN, *City Clerk.*

REPORT.

OFFICE OF CITY SOLICITOR, }
FEBRUARY, 28th, 1867. }

TO THE CITY COUNCIL :

Gentlemen : In compliance with the provisions of the 11th Chapter of the Ordinances, I transmit the report of the business of my office during the year, ending this day.

The following actions, in which the city is a party, or interested, were pending in the Courts on the first day of March, A. D., 1866.

1. City of Lowell *vs.* Otis Allen.
2. Brent Johnson and Wife *vs.* City of Lowell.
3. Sarah Brown *vs.* City of Lowell.
4. Peter Clarkin and Wife *vs.* Lorenzo Phelps, et. al.
5. Moses W. Kidder *vs.* City of Lowell.
6. Robert Wood and Wife *vs.* City of Lowell.
7. John Devine *vs.* City of Lowell.
8. Sarah T. Tilton *vs.* City of Lowell.

1. The action *City of Lowell vs. Otis Allen*, was tried at the April term of the Supreme Judicial Court, 1866, and verdict rendered for the City for \$1,692.00, being the whole sum claimed for damages for the non-performance of a contract to supply lumber for the construction of Central Bridge. The defendant objected to the instructions given by the Judge to the jury, at the trial, and the case went

before the whole Court upon the law reserved. An argument on the points of law was had before the whole Court, in Boston, in January last. No decision has been given upon the questions of law, but I anticipate that the exceptions will be overruled and judgment given in favor of the city.

2. *Brent Johnson and Wife vs. City of Lowell.* This action was for an injury to the female plaintiff, caused by falling upon the sidewalk in Broadway, between Suffolk and Adams Streets. The injury was a permanent one, for which the plaintiffs claimed to recover ten thousand dollars. A verdict was found for the defendants. The plaintiffs took exceptions to the rulings of the Judge upon the trial, and the exceptions were argued in January. The whole Court sustained the opinion of the Judge, given at the trial, and ordered judgment to be entered on the verdict in favor of the city.

3. *Sarah Brown vs. City of Lowell.* In this action the plaintiff claimed damages for an injury occasioned by her falling on the ice and snow at the intersection of Tremont with Moody Street. It was proved that the street at this point was defective by reason of an accumulation of snow and ice therein thrown from the railroad track, which at this point enters Tremont Street by a curve from Moody Street. The plaintiff recovered judgment for \$600 which has been satisfied.

4. *Peter Clarkin and Wife vs. Lorenzo Phelps, et. al.* This action was described in my last report. It was tried

in 1865 at the September term of the Superior Court, when the jury did not agree. During the last year it was adjusted by the parties, and has been dismissed from the docket of the Court.

5. *Moses W. Kidder vs. City of Lowell.* This action was brought for medical services rendered by the plaintiff to a pauper at the almshouse, and was sustained by the plaintiff, recovering eight dollars.

The three remaining actions on the list were assigned for trial at the October term of the Supreme Judicial Court at Cambridge, and preparations were made for the trials. The duration of the term of the Court was limited, and the term closed before the cases were reached.

During the present year the following actions have been commenced against the City :

1. *Mary Sheridan vs. City of Lowell.* In this action the plaintiff claimed damages for an injury caused by a defect in Cabot Street, near its intersection with Merrimack Street. It was settled by paying the plaintiff two hundred and fifty dollars damages and nineteen dollars and fifty-one cents cost.

2. *Eugene Barney, by his next friend vs. City of Lowell.* This action is brought to recover damages for an injury to the plaintiff who is a child two or three years old. At the time of the injury the child was upon the street unattended; and it is claimed was injured by one of the City teams then passing through the Street.

3. *Mary McManus vs. City of Lowell.* This action alleges an injury to the plaintiff while travelling on the highway. This case and the one next preceding are pending in the Supreme Judicial Court.

4. *Charles A. F. Swan vs. City of Lowell.* In this action damages are claimed for an injury to a carriage, alleged to have happened on Shattuck Street. It is pending in the Superior Court.

5. *B. F. Hebard vs. City of Lowell.* This is a Bill in Equity brought in the U. S. Circuit Court to recover damages for the use of a patent burner. The defence is that the City has purchased the right to use them of the complainant. An answer has been filed to the bill, and the case is ready for taking the evidence.

TAPPAN WENTWORTH,

City Solicitor.

LOWELL, February 28th, 1867.

City Document.

CITY OF LOWELL.



ANNUAL REPORT

OF THE

CITY MARSHAL,

FOR THE YEAR

1866.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, December 28, 1866.

Read and accepted; sent down for concurrence.

JOHN H. McALVIN, City Clerk.

IN COMMON COUNCIL, December 28, 1866.

Read and accepted in concurrence.

GEO. GARDNER, C. C. C.

REPORT.

OFFICE OF CITY MARSHAL, }
DECEMBER 4, 1866. }

TO THE CITY COUNCIL:

Gentlemen:—Agreeably to usage, and in compliance with an Ordinance of the City requiring reports from city officers, I herewith present my Fifth Annual Report of the Police Department for the year ending November 30th, 1866.

The following condensed summary will exhibit the whole number of arrests made by the Department, and a classification of the causes for which they were made, during the year:

LODGERS.

The whole number admitted to Station House for lodging was.....	1036
Males,.....	785
Females,.....	251
Foreigners,.....	747
Americans,.....	289
Non-Residents,.....	787
Minors,.....	41

ARRESTS.

Whole number of arrests,.....	2242
Whole number committed to Station House,.....	1994

Males,	1719
Females,	523
Foreigners,	1762
Americans,	480
Non-Residents,	335
Minors,	175

CAUSES OF ARRESTS.

Common Drunkards,	55
Drunkenness,	1079
Drunkenness, second offense,	26
Larceny,	215
Assault and Battery,	176
Safe-keeping,	123
Vagrancy,	45
Passing Counterfeit Money,	4
Truancy,	48
Fornication,	21
Adultery,	11
Disturbing the Peace,	39
Liquor Nuisance,	117
Breaking Glass,	31
Illegally driving off Teams,	4
Keeping House of Ill-Fame,	3
Pasturing Cows on Street,	8
Obtaining Money by False Pretense,	2
Insane,	13
Breaking and Entering,	15
Trespass and Larceny of Fruit,	25
Stubborn Children,	19
Peace Warrants,	3
Disturbing School,	2
Escaped Prisoners,	8
Arson,	2
Assault with Intent to Kill,	2
Embezzlement,	6
Throwing Stones on Street,	11
Fast Driving on Street,	4

Breaking Jail,.....	1
Discharging Fire Arms within City limits,.....	5
Assault with Attempt to Rob,.....	3
Larceny from Person,.....	6
Cruelty to Horse,.....	1
Doing Business on Lord's Day,.....	4
Playing Marbles on Lord's Day,.....	7
Rape,.....	1
Violating Vault Ordinance,.....	13
Bastardy,.....	3
Highway Robbery,.....	1
Noisy and Disorderly House,.....	3
Malicious Mischief,.....	3
Attempt to Set Fire,.....	2
Assault on Officers,.....	6
Capias,.....	1
Violating Swine Ordinance,.....	6
Obstructing Street,.....	5
Bathing in Canal,.....	8
Violating Swill Ordinance,.....	2
Violating Sink Ordinance,.....	5
Destroying young Birds,.....	2
Playing Cards on Lord's Day,.....	9
False Alarms of Fire,.....	2
Suspicious of Murder,.....	2
Throwing Filth in Street,.....	7
Receiving Stolen Goods,.....	3
Playing Hockey on Street,.....	5
Attempt to Commit Rape,.....	2
Selling by small measure,.....	2
Violation of Dog Law,.....	3
Removing Plants from Burial Ground,.....	2

P R O S E C U T I O N S .

The whole number of prosecutions before the Police Court was,1041

Whole number of above committed to the Station House was,..... 914

The following is a List of the Offenses:

Common Drunkards,..... 44

Drunkenness,	307
Drunkenness—second offense,	19
Larceny,	149
Assault and Battery,	169
Passing Counterfeit Money,	2
Truancy,	36
Fornication,	19
Adultery,	8
Liquor Nuisance,	117
Vagabonds,	27
Breaking and Entering,	13
Receiving Stolen Goods,	3
Peace Warrants,	3
Stubborn Children,	14
Embezzlement,	5
Breaking Glass,	11
Keeping House of Ill-Fame,	4
Obtaining Goods by False Pretense,	2
Violation of Sunday Law,	6
Discharging Fire Arms within City Limits,	5
Pasturing Cows on Street,	8
Assault with Intent to Kill,	4
Larceny from Person,	7
Disturbing the Peace,	1
Bathing in Canal,	3
Disturbing School,	1
Arson,	1
Throwing Filth in Street,	5
Fast Driving in Streets,	2
Breaking Jail,	1
Cruelty to Horse,	1
Illegal taking of Teams,	5
Attempt to commit Rape,	1
Violating Vault Ordinance,	13
Violating Swill Ordinance,	1
Violating Dog Law,	3
Playing Cards on Lord's Day,	6
Removing Plants from Burial Ground,	2
Selling by Small Measure,	2

Malicious Mischief,.....	5
Violation of Swine Ordinance,.....	6

Whole number convicted before the Police Court,..... 976

Whole number found Not Guilty and discharged,..... 65

Number of City Ordinance cases,.....84

Truancy,32

Pasturing Cows in Streets,..... 8

Throwing Filth in Street,..... 5

Fast Driving in Streets,..... 2

Discharging Fire-arms in City limits,..... 5

Violating Vault Ordinance,.....13

Violating Swine Ordinance,..... 7

Obstructing Streets,..... 2

Bathing in Canal,..... 3

Pasturing Cows on Commons,..... 2

Violating Sink Ordinance,..... 5

M I S C E L L A N E O U S .

Defective Sidewalks reported,.....105

“ Streets “ 85

“ Lamps “310

“ Gas Pipes, “ 6

“ Cesspools “ 21

“ Hydrants “ 7

Drains, Vaults and Nuisances reported,.....416

Store Doors found opened and closed,..... 21

Obstructions removed from Sidewalks,..... 41

Obstructions removed from Streets,..... 23

Stray Teams put up at Stables,..... 16

Lost Children returned to Parents,..... 11

Fires put out without alarm..... 5

Amount of money taken from prisoners and restored to them,..\$5,324.47

Amount of property reported to the Police Department as stolen

in the City,..... 1,583.75

Amount of stolen property recovered by the Police Department, 893.60

Whole amount of money received by the Officers and paid to the City Treasurer by the Clerk of the Police Court, ....\$3,221.75	
Amount now in hands of Clerk of Police Court and due the City,.....	500.00

DAY POLICE.

This force consists of the City Marshal, Deputy City Marshal, Truant Commissioner, and two Detective Officers.

NIGHT POLICE.

This force consists of a Captain of the Watch and twenty-two Patrolmen; two of that number are detailed to take care of the police station, leaving twenty for street duty.

Believing that a prevention of crime is more salutary than its punishment, and for the better protection of our citizens in person and property, I would respectfully suggest the appointment of one Patrolman for each ward in the city, for day duty.

For the sanitary condition of the city, I think it necessary for the health of the inhabitants that the streets, lanes and alley-ways should be kept in a cleanly condition, and for this purpose I would recommend that one team, with two men should be employed every week-day, for the purpose of keeping said streets, lanes and alley-ways neat and clean, and in connection with this, I would suggest that some different plan from the present might be adopted in relation to the cleaning of vaults, believing that this work should be attended to by some responsible person or persons.

In conclusion, I would take this opportunity to thank the Mayor and members of the City Government for the kindness shown me by them, and for the prompt manner in which everything that was necessary has been furnished for the needs of the department.

SCHEDULE OF PROPERTY.

The following is a list of the property under my charge at the Police Court Room, Police Office, and Police Station, December 1, 1866:

25 Chairs in guard-room,.....	\$ 31.25
31 Cane-seat Chairs,.....	15.50
6 Wood Chairs,.....	1.50
8 Arm-Chairs,.....	10.00
10 Desks,.....	60.00
12 Tables,.....	60.00
1 Clock,.....	8.00
1 Slate,.....	.25
1 Stove-pipe and Pot,.....	5.00
Beds and Bedding,.....	50.00
2 Mirrors,.....	2.00
18 Settees,.....	36.00
16 Pails and Buckets,.....	6.00
1 Seal of Court,.....	12.00
1 Sofa,.....	5.00
1 Wardrobe,.....	6.00
2 Fire Safes,.....	65.00
Carpeting,.....	20.00
57 Police Badges,.....	110.00
2 pair Hand-cuffs,.....	3.00
32 Police Clubs,.....	8.00
32 Police Rattles,.....	32.00
Window Curtains and Fixtures,.....	3.00
8 Spittoons,.....	1.25
10 Inkstands,.....	2.00

2 Iron Rakes,.....	.50
1 Wheelbarrow,.....	2.00
1 Coal-sifter,.....	.50
3 Shovels,.....	1.50
Grappling Irons,.....	4.00
8 Tin Dippers,.....	.25
2 Dust-pans, 2 Brooms and 1 Brush.....	1.00
1 Set Police Buttons, with Dies,.....	98.00
25 Tons Coal,.....	250.00

Respectfully submitted.

BICKFORD LANG,

City Marshal.

City Document.

CITY OF LOWELL.



ANNUAL REPORT

OF THE

Superintendent of Alms-House

AND

House of Reformation for Juvenile Offenders,

FOR THE YEAR

1866.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, January 22, 1867.

Read and accepted; sent down for concurrence.

JOHN H. McALVIN, City Clerk.

IN COMMON COUNCIL, January 22, 1867.

Read and accepted in concurrence.

GEO. GARDNER, C. C. C.

REPORT.

OFFICE OF SUPERINTENDENT OF ALMS-HOUSE,
AND HOUSE OF REFORMATION FOR JUVENILE OFFENDERS,
JANUARY 22, 1867.

}

TO THE CITY COUNCIL:

Gentlemen.:—In accordance with the requirements of the Ordinances of the City, it becomes my duty, as Superintendent, to report the condition and standing of the institutions under my charge for the year ending December 31, 1866, comprising the Alms-House and City Farm connected therewith, also the House of Employment and Reformation for Juvenile Offenders located thereon, and I herewith respectfully submit the following report.

FARM.

The boundaries of the farm remain the same as last year; twelve acres of low land were seeded down to oats and grass, and about the same quantity will be taken up for cultivation, making thirty acres of land for crops, the same amount as last year.

A large amount of good dressing is now on hand, and prepared for use for the coming year.

The hospital yards have been enlarged and graded, the vaults removed further from the buildings, fences have

been built, and other repairs on fences have been made, the whole at an expense of about sixteen hundred dollars.

BUILDINGS.

The outside of the buildings are in good repair, but some repairs will be necessary on the inside; the boilers in the cook-room and wash-room need re-setting, and probably new furnaces will be necessary before another winter.

CROPS.

The crop of hay has not been as large as last year, but was all secured in good condition. Corn, oats, potatoes, beans, onions and roots of all kinds have done well, producing more than an average crop. Apples, pears and cranberries yielded a very light crop. Strawberries were an entire failure, owing to the grub eating the plants, and the plants set last spring have been nearly destroyed, so that the prospect for strawberries for the coming year is far from flattering.

HELP.

Two men have been employed through the year, and an extra hand part of the time. A few days' work in haying, with the assistance of the boys from the school, have constituted the force for carrying on the farm. The amount of labor performed by the inmates is very small, there being no inmates capable of performing hard labor.

FARMING TOOLS.

These are all in good condition with the exception of the mowing machine. I am not aware that much expense will be necessary, unless a new mowing machine shall be purchased.

TABLE OF PRODUCTS.

The following table will exhibit the quantity and estimated value of each of the different productions of the farm for the year 1866. It does not include any of the articles used on the premises before harvesting, but only what has been sold or laid by for future use.

QUANTITY.	KIND.	PRICE.	VALUE.
44 tons	English Hay.	\$30.00	\$1320.00
16 "	Meadow Hay.	15 00	240.00
4 "	Squash.	12.00	48.00
600 bushels	Corn in the ear.	.75	450.00
12 "	Beans.	3.50	42.00
4200 pounds	Pork (round hog).	.14	588.00
1200 bushels	Potatoes.	.60	720.00
713 bunches	Asparagus.	.08 $\frac{1}{2}$	59.42
479 bushels	Beets.	.40	191.60
80 "	Turnips.	.33	26.40
62 "	Onions.	.80	49.60
2303	Tomato Plants.	.03	69.09
A lot of	Pears and Apples.	...	100.00
20 bushels	Peas.	1.00	20.00
10 "	Cranberries.	4.00	40.00
300 "	Oats.	.70	210.00
A lot of	Corn Fodder.	...	50.00
1000 pounds	Peppers.	.04	40.00
A lot of	Sweet Corn.	...	50.00
8 tons	Oat Straw.	15.00	120.00
56 dozen	Lettuce.	.72	42.48
1059 pounds	Rhubarb.	.03	31.77
12 tons	Pumpkin.	10.00	120.00
2000 heads	Cabbage.	.05	100.00
			<hr/> \$4728.36

STOCK.

There has been no change in the stock, except the addition of one cow, and in the number of swine. It now consists of three horses, one pair of oxen, seven cows, and twenty-five swine.

PAUPERS.

The whole number of inmates of the Alms-House supported wholly or in part by the City, at the commencement of the present year was fifty-four. Since that time seventy-seven have been admitted, seventy discharged, seven absconded, and four have died, leaving the number now in the institution fifty.

Of the four who have died, all had been received in the last stages of disease, and had been inmates but a short time.

The health of the inmates during the year has been remarkably good, there having been no serious cases of sickness among them.

I would say in this connection, that Dr. George E. Pinkham has been prompt and faithful in the performance of his duties, and has always been found ready and willing to prescribe for any of the inmates requiring the services of a physician.

The following table shows the name, age, when admitted, place of birth, date of discharge, and an exhibit as far as may be, of the present condition of such as remain, during the year.

T A B L E .

No.	NAMES.	AGE.	SEX.	COLOR.	BIRTH-PLACE.	ADMITTED.	DISCHARGED.	REMARKS.
1	Electa Marshall,.....	43	F.	White.	New Hampshire,	June 9, 1854.		Insane.
2	Mary Cunnisley,.....	43	F.	"	Ireland,	July 9, 1854.		Insane.
4	Samuel B. Jones,.....	50	M.	"	Wilmington, Mass.,	Feb. 4, 1857.		Frozen feet.
5	Thaddeus Duran,.....	25	M.	"	Lowell,	Jan. 23, 1859.		Insane.
6	Martha King,.....	76	F.	"	Wilbraham, Mass.,	June 24, 1859.		Rheumatism.
7	Edward Devine,.....	2	M.	"	Boston,	Sept. 5, 1859.		
8	John Costello,.....	23	M.	"	"	Dec. 8, 1859.		Insane.
9	Bridget Devine,.....	35	F.	"	"	April 24, 1860.		
10	Emmie Wade,.....	49	F.	"	Newbury,	Oct. 19, 1861.		Insane.
11	Maria Peabody,.....	18	F.	"	Lowell,	May 27, 1862.		Idiotic.
12	Mary York,.....	72	F.	"	Marblehead, Mass.,	June 19, 1862.	Absconded.	
13	Charles W. Wilkins,.....	70	M.	"	Mt. Vernon, N. H.,	Sept. 8, 1862.	July 19, 1866.	Insane.
17	Daniel Kelley,.....	65	M.	"	Draught, Mass.,	April 22, 1863.		Infant.
19	Richard Thayer,.....	60	M.	"	Boston,	June 12, 1863.	Oct. 23, 1866.	Lame.
23	Nancy A. Kitchen,.....	11	F.	"	N. Andover, "	Oct. 23, 1863.		Tremens.
24	Charlotte A. Kitchen,.....	9	F.	"	N. Andover, "	Oct. 23, 1863.		
25	Sarah J. Kitchen,.....	6	F.	"	Milford, N. H.,	Oct. 23, 1863.	Oct. 1, 1866.	
26	Sarena B. Kitchen,.....	3	F.	"	Merrimack, N. H.,	Oct. 23, 1863.		
27	Mary J. Brown,.....	24	F.	"	England,	Oct. 26, 1863.	May 21, 1866.	
28	Edward U. Brown,.....	3	M.	"	Lowell,	Oct. 26, 1863.	May 21, 1866.	
32	George Turner,.....	57	M.	Colored.	Virginia,	Jan. 26, 1864.		Insane.
34	Nancy How,.....	52	F.	White.	Bethel, Me.,	May 3, 1864.		Insane.
36	Bethia P. Brown,.....	55	F.	"	Danvers, Mass.,	May 3, 1864.		Insane.
89	Alice J. Rand,.....	17	F.	"	Lowell,	Aug. 3, 1865.		
90	Frank H. Rand,.....	6m	M.	"	Westford, Mass.,	Aug. 3, 1865.		
91	Eleazer Wright,.....	70	M.	"	Vermont,	Aug. 4, 1865.		
92	Sarah H. Wright,.....	62	F.	"	Ireland,	Aug. 4, 1865.		
93	Catharine Smith,.....	45	F.	"	Ireland,	Aug. 22, 1865.		Palsy.
97	Julia A. Lawler,.....	41	F.	"	Dexter, Me.,	Aug. 22, 1865.	Aug. 13, 1866.	Insane.
100	Bridget McCombs,.....	40	F.	"	Ireland,	Aug. 28, 1865.	April 4, 1866.	
101	Thomas McCombs,.....	14	M.	"	Lowell,	Sept. 27, 1865.	Sept. 10, 1866.	
102	Eliza A. McCombs,.....	16	F.	"	Lowell,	Sept. 27, 1865.	Sept. 10, 1866.	
103	Esther McCombs,.....	7	F.	"	Lowell,	Sept. 27, 1865.	Sept. 10, 1866.	
104	Jane McCombs,.....	5	F.	"	Lowell,	Sept. 27, 1865.	Sept. 10, 1866.	
105	Ellen Coffey,.....	32	F.	"	Ireland,	Sept. 27, 1865.	Sept. 10, 1866.	
106	Timothy Coffey,.....	40	M.	"	Ireland,	Sept. 27, 1865.	Sept. 10, 1866.	
108	Isaac Kimball,.....	64	M.	"	New Hampshire,	Sept. 30, 1865.	April 2, 1866.	Broken arm.
109	Thomas Allen,.....	9	M.	"	Lowell,	Oct. 8, 1865.	April 2, 1866.	Lost a leg in army.
110	Margaret Allen,.....	7	F.	"	Lowell,	Oct. 11, 1865.	Feb. 21, 1866.	Insane.
111	Edward Allen,.....	5	M.	"	Lowell,	Oct. 11, 1865.	Feb. 21, 1866.	
112	Eliza Briggs,.....	56	F.	"	Alton, N. H.,	Oct. 11, 1865.	July 5, 1866.	Tremens.

T A B L E (Continued.)

NO.	NAMES.	AGE.	SEX.	COLOR.	BIRTH-PLACE.	ADMITTED.	DISCHARGED.	REMARKS.
113	Hannah Shea,.....	22	F.	White.	Lowell.	Oct. 18, 1865.	April 2, 1866.	Tremens.
114	Samuel Hunt,.....	64	M.	"	Chelmsford,	Oct. 27, 1865.	Abandoned.	Tremens.
116	Joseph Bickford,.....	55	M.	"	Rochester, N. H.,	Nov. 4, 1865.	July 1, 1866.	
117	Luenda Brown,.....	17	F.	"	Lowell,	Nov. 17, 1865.	May 17, 1866.	
118	Mary J. Smith,.....	11	F.	Colored.	Providence, R. I.,	Nov. 23, 1865.	April 19, 1866.	Syphalitis.
119	Julia A. Willey,.....	42	M.	White.	Livermore, Me.,	Nov. 28, 1865.	Died Jan. 7, 1866.	Tremens.
120	Owen McOsker,.....	40	M.	"	Ireland,	Dec. 2, 1865.	Jan. 1, 1866.	Syphalitis.
121	Eliza E. Fiske,.....	18	F.	"	Lowell,	Dec. 4, 1865.	Feb. 24, 1866.	Lame.
122	Matthew McKenney,....	40	M.	"	Ireland,	Dec. 9, 1865.	April 2, 1866.	
123	John Fitzgerald,.....	17	M.	"	Ohio,	Dec. 14, 1865.	March 12, 1866.	Child-birth.
125	Sarah Hill,.....	29	F.	"	Australia,	Dec. 18, 1865.	Jan. 19, 1866.	Feeble.
127	Samuel Rano,.....	58	M.	"	Hill, N. H.,	Dec. 22, 1865.	Abandoned.	
128	John Dolan,.....	50	M.	"	Ireland,	Dec. 23, 1865.	June 1, 1866.	
129	Margaret Saunders,....	19	F.	"	Ireland,	Jan. 8, 1866.	Jan. 17, 1866.	Sent to State A. H.
130	John H. Saunders,.....	23	M.	"	Ireland,	Jan. 8, 1866.	Jan. 17, 1866.	Sent to State A. H.
131	Mary Barry,.....	33	F.	"	Lowell,	Jan. 31, 1866.	March 19, 1866.	Lame arm.
132	Emma J. Cheever,.....	6	F.	"	Lowell,	Feb. 3, 1866.	June 23, 1866.	
133	Ellen F. Cheever,.....	3	F.	"	Lowell,	Feb. 3, 1866.	June 23, 1866.	
134	Samuel Green,.....	54	M.	"	Ireland,	Feb. 5, 1866.	April 2, 1866.	
135	Susan Murtle,.....	6	F.	"	Lowell,	Feb. 8, 1866.	May 31, 1866.	
136	Michael Sullivan,....	30	M.	"	Ireland,	Feb. 16, 1866.	April 2, 1866.	Small Pox.
137	Octavia Brown,.....	16	F.	Colored.	Virginia,	Feb. 24, 1866.	April 2, 1866.	Insane.
138	Samuel Holt,.....	52	M.	White.	Temple, N. H.,	March 3, 1866.	March 7, 1866.	Tremens.
139	Margaret Maguire,....	38	F.	"	Ireland,	March 19, 1866.	May 1, 1866.	
140	Ada E. Maguire,.....	8	F.	"	Lowell,	March 19, 1866.	May 1, 1866.	
141	Willard Damon,.....	31	M.	"	Lowell,	March 20, 1866.	April 10, 1866.	Small Pox.
142	Sarah Cunningham,....	29	F.	"	Lowell,	March 20, 1866.	May 29, 1866.	Tremens.
143	Hugh Riley,.....	32	M.	"	Lowell,	March 29, 1866.	Sept. 16, 1866.	Lost a leg in army.
144	William E. Barrett,....	10	M.	"	Ireland,	April 2, 1866.	June 23, 1866.	
145	Mary E. Barrett,.....	8	F.	"	Lowell,	April 2, 1866.	May 29, 1866.	
146	Katie Barrett,.....	5	F.	"	Lowell,	April 2, 1866.	June 23, 1866.	
147	Benjamin C. Hamblet,...	8	M.	"	Lowell,	April 16, 1866.	June 23, 1866.	
148	Mary E. Hamblet,.....	6	F.	"	Lowell,	April 16, 1866.	June 23, 1866.	
149	Dolly Hamblet,.....	4	F.	"	Lowell,	April 16, 1866.	June 23, 1866.	
150	Charles Gordon,.....	55	M.	"	Lowell,	May 8, 1866.	June 23, 1866.	Abandoned.
151	Levi Hoyt,.....	60	M.	"	Townsend, Mass.,	May 29, 1866.	June 23, 1866.	Tremens.
152	Mary McDonald,.....	8	F.	"	Lowell,	June 1, 1866.	June 1, 1866.	
153	James L. McDonald,....	6	M.	"	Lowell,	June 1, 1866.	June 1, 1866.	
154	Margaret J. McDonald,...	4	F.	"	Lowell,	June 1, 1866.	June 1, 1866.	
155	Catherine Brennan,....	29	F.	"	Ireland,	June 7, 1866.	June 8, 1866.	
156	John W. Brennan,....	1m	M.	"	Lowell,	June 7, 1866.	June 8, 1866.	

Of those remaining in the institution January 1st, 1867, twenty-eight are males and twenty-two are females, and twenty-one of them are minors. The oldest is aged eighty-four years and the youngest seven months. Ten of the number are afflicted with insanity and one is idiotic.

EXPENDITURES.

Balance undrawn January 1st, 1866,.....	\$ 1,823.31
Appropriated and transferred,.....	13,000.00
Total credits for the year,.....	3,103.73

Making a total of.....\$17,927.04

Total expense of supporting paupers, including outside relief, and bills of every description drawn against that appro- priation for the year,.....	\$15,248.99
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Leaving balance undrawn, January 1st, 1867,..... \$2,678.05

Deduct from total expense amount of bills for out-
standing relief, including Insane Hospital at
Worcester, State Reform School, and Nautical
Branch, the burial of State paupers, and all
other bills not relating to support of Alms-
House,.....\$4,490.05

Also, amount received for sales from the Farm and
all other sources,..... 3,103.73
\$7,593.78

Leaving the total expense of supporting the Alms-House and
Reform School,.....\$7,655.21

Deduct expense of Reform School,.....\$3,827.60
\$3,827.61

Add for labor of boys in Reform School,..... 300.00

Total expense of Alms-House,.....\$4,127.61

By the above statement it will be seen that the whole expense of supporting the Alms-House proper for the year, was \$4,127.61. The average number of inmates for the whole time 51, making the expense for each individual thus supported \$80.93 18-51, for the year, or \$1.55 1-2 per week.

The interest on the Alms-House property, nor the products of the farm are included in the foregoing account, although said products are used as they may be needed.

It will be seen that the number of inmates exceed the number of last year, by an average of 1 1-4; there are quite a number of children of soldiers among the inmates, and but for the law requiring cities and towns to support such, our numbers would have sensibly decreased during the last year.

REFORM SCHOOL.

This school, as usual, is in a very fine condition. Mr. William A. Lang, who has been a very successful teacher here for a number of years, still continues to keep and govern the school in an admirable manner. He also continues to discharge the duties of chaplain, and his administration and example, both as teacher and chaplain, are such as to command the respect and love of the scholars, as well as to keep them under excellent discipline; the school is conducted on the principle that the moral and physical as well as the intellectual condition of the scholars are to be promoted.

When we consider the class of scholars that attend this school, the most of them having been habitual truants and absentees from our city schools, and some of them sent to this institution for other crimes, great things of

course cannot be expected of them, but in a great majority of cases their behavior is good, and they improve in everything that is necessary to make them good citizens, and I trust this improvement may be permanent.

The health of the scholars has been remarkably good ever since the school was established, some sixteen years ago; during the whole of that time there has been but few cases of sickness of a serious nature, and but one death has occurred.

The arrangement between the Overseers of the Poor and the city of Chelsea continues the same as heretofore, but a small number have been received from Chelsea during the last year.

The following tables will show the name, age, offence, place of birth, when committed, by what authority, when discharged or pardoned, and general remarks upon each of the pupils, both from Lowell and Chelsea, for the year.

LIST OF LOWELL BOYS.

NAMES.	AGE.	OFFENCE.	BIRTH PLACE.	COMMITTED.	AUTHORITY.	LENGTH OF SENTENCE.	DISCHARGED.	REMARKS.
Charles Lynch.....	11	Truant,	Lowell,	March 22, 1864.	Police Court	2 yrs.	March 22, 1866	Very much impr'd—a good boy.
James J. Lynch.....	10	Truant,	Lowell,	March 22, 1864.	"	1 yr.	Aug. 14, 1865.	Abandoned Jan. 16, '66—return'd
Henry Quinn.....	9	H. Truant,	Lowell,	March 28, 1865	"	2 yrs.	March 28, 1866.	Very much impr'd—a good boy.
Ellen Flynn.....	9	Truancy,	Lowell,	April 4, 1865.	"	1 yr.	April 7, 1865.	A bad boy.
John Crilly.....	13	Truancy,	Lowell,	April 7, 1865.	"	1 yr.	April 7, 1866.	Pardoned—a very bad boy.
James M. Chambers,	11	Truancy,	New York,	April 7, 1865.	"	1 yr.	May 24, 1866.	A bad boy.
George E. How.....	11	Truancy,	Lowell,	May 24, 1865.	"	1 yr.	June 23, 1866.	Improved—a very good boy.
Cassius F. Hogan.....	8	Truancy,	Lowell,	June 23, 1865.	"	2 yrs.	July 20, 1866.	Abandoned June 12, '66—return'd
Benjamin F. Pitts.....	13	Truancy,	New Hampshire,	June 27, 1865.	"	1 yr.	July 20, 1866.	A very good boy.
James Higgins.....	13	Truancy,	England,	July 26, 1865.	"	6 mos.	Feb. 1, 1866	Improved.
John P. Connelly.....	9	Stubbornness,	Lowell,	Aug. 1, 1865.	"	6 mos.	Feb. 22, 1866.	Improved—a good boy.
John Taylor.....	12	Stubbornness,	Vermont,	Aug. 22, 1865.	"	2 yrs.	"	Abandoned—left the city.
James Kennedy.....	8	Stubbornness,	Lowell,	Aug. 22, 1865.	"	6 mos.	"	Improved.
John Brady.....	13	Larceny,	Pennsylvania,	Sept. 7, 1865.	"	6 mos.	March 6, 1866.	Improved—a good boy.
Michael McDermott,	10	Larceny,	Lowell,	Sept. 7, 1865.	"	6 mos.	March 6, 1866.	Not much improved—bad.
Patrick Hoar.....	10	Larceny,	Ireland,	Sept. 18, 1865.	"	7 mos.	March 19, 1866.	Much improved—a good boy.
James McKenney.....	13	Truancy,	Lawrence,	Sept. 19, 1865.	"	6 mos.	April 19, 1866.	Very much improved.
Dennis Harrington.....	9	Larceny,	Lawrence,	Sept. 22, 1865.	"	6 mos.	March 22, 1866.	Not much improved—bad.
Edward McNamara.....	10	Larceny,	Lowell,	Sept. 22, 1865.	"	6 mos.	March 22, 1866.	Very much improved.
James Quinn.....	9	Larceny,	Lowell,	Sept. 22, 1865.	"	6 mos.	March 22, 1866.	Improved some—a good boy.
Louisa Bean.....	13	Larceny,	Vermont.	Oct. 3, 1865.	"	6 mos.	April 4, 1866.	Improved.
David Sears.....	10	Truancy,	Lowell,	Oct. 3, 1865.	"	1 yr.	April 3, 1866.	Improved some.
Francis Monahan.....	11	Truancy,	Lowell,	Oct. 11, 1865.	"	2 yrs.	Oct. 11, 1866.	Not much improved—bad.
John Dempsey.....	9	Truancy,	Ireland,	Oct. 19, 1865.	"	2 yrs.	March 22, 1866.	Very much impr'd—a good boy.
William Conway.....	13	Stubbornness,	Lawrence,	Oct. 23, 1865.	"	2 yrs.	Aug. 14, 1866.	Abandoned Jan. 16, '66—return'd
John Kelly.....	14	Defacing building,	Lowell,	Nov. 1, 1865.	"	1 yr.	March 28, 1866	Very much impr'd—a good boy.
Michael Fulton.....	14	Larceny,	Maine,	Nov. 13, 1865.	"	6 mos.	May 21, 1866.	Bad—sent to H. of Cor. for 6 m.
John McLaughlin.....	16	Truancy,	Connecticut,	Nov. 21, 1865.	"	6 mos.	May 28, 1866.	Improved—a good boy.
Henry L. Heath.....	14	Vagrant,	Rhode Island,	Nov. 25, 1865.	"	2 yrs.	May 30, 1866.	Very much improved.
James Murray.....	9	Larceny,	England,	Nov. 30, 1865.	"	6 mos.	Aug. 15, 1866.	Pardoned—improved.
John Munro.....	9	Truancy,	Lowell,	Dec. 6, 1865.	"	2 yrs.	June 30, 1866.	Improved.
George A. Prescott.....	14	Stubbornness,	New Hampshire,	Dec. 7, 1865.	"	2 yrs.	Aug. 5, 1866.	Abandoned—return'd July 3, '66
Andrew McEvoy.....	14	Truancy,	Lowell,	Jan. 1, 1866.	"	2 yrs.	Aug. 7, 1866.	Abandoned—return'd June 15
James P. McNally.....	13	Truancy,	N. Chatham,	Jan. 13, 1866.	"	6 mos.	Aug. 7, 1866.	A good boy.
Daniel Harrington.....	15	Larceny,	England,	Feb. 5, 1866.	"	3 mos.	Aug. 7, 1866.	Not improved.
William Stuffles.....	11	Larceny,	Lowell,	Feb. 7, 1866.	"	6 mos.	Aug. 12, 1866.	Abandoned June 8—ret'd June 14
Eliza A. Burgh.....	14	Stubbornness,	Lowell,	Feb. 12, 1866.	"	6 mos.	"	"
Francis Hallowell.....	14	Truant,	Maine,	"	"	"	"	"

LIST OF LOWELL BOYS, (Continued.)

NAMES.	AGE.	OFFENCE.	BIRTH-PLACE.	COMMITTED.	AUTHORITY.	LENGTH OF SENTENCE.	DISCHARGED.	REMARKS.
John Smith,.....	12	Larceny,	Ireland,	Feb. 17, 1866.	Police Court.	6 mos.	Aug. 17, 1866.	
Michael McDonough,.....	13	Larceny,	Lowell,	March 23, 1866.	"	6 mos.	Sept. 22, 1866.	Abscon'd June 8—ret'd Aug. 3.
Arthur Prescott,....	10	Subbornness,	Lowell,	March 23, 1866.	"	3 mos.	April 21, 1866.	Pardoned—gone West.
Charles McQuade,.....	12	Larceny,	Lawrence,	March 28, 1866.	"	3 mos.	June 28, 1866.	Very much improved.
John McCanna,.....	10	Truancy,	Lowell,	April 9, 1866.	"	2 yrs.		
John Cotter,.....	10	Truancy,	Lowell,	April 9, 1866.	"	1 yr.		
Patrick Rouch,.....	12	Truancy,	Lowell,	April 9, 1866.	"	1 yr.		
Albert Taylor,.....	11	Truancy,	Lowell,	April 11, 1866.	"	2 yrs.		
John P. Connelly,.....	10	Truancy,	Lowell,	April 11, 1866.	"	2 yrs.		
Owen Dunlavy,.....	12	Truancy,	Lowell,	April 15, 1866.	"	3 mos.	July 21, 1866.	Improved—a good boy.
Daniel Donahoe,.....	15	Subbornness,	Lowell,	April 21, 1866.	"	6 mos.	Nov. 3, 1866.	Absconded June 7.
Michael Moran,.....	11	Truancy,	Lowell,	May 9, 1866.	"	3 mos.	Aug. 9, 1866.	Abscon'd June 8—ret'd June 27
George H. Nutting,.....	11	Truancy,	Lowell,	May 26, 1866.	"	1 yr.		
Isaac T. Nutting,.....	13	Truancy,	Lowell,	May 26, 1866.	"	1 yr.		
Lake Berth,.....	9	Truancy,	Lowell,	May 28, 1866.	"	2 yrs.		
Michael O'Neil,.....	11	Truancy,	Lowell,	June 4, 1866.	"	2 yrs.		
Ellen Roark,.....	12	Vagrancy,	Lowell,	June 12, 1866.	"	2 yrs.		
William Stables,.....	14	Truancy,	Roston,	June 18, 1866.	"	2 yrs.	Sept. 4, 1866.	Very much improved.
Francis Kemp,.....	9	Truancy,	Boston.	June 23, 1866.	"	1 yr.		
James Wilmore,.....	16	Truancy,	Boston.	June 23, 1866.	"	1 yr.		
Michael Shanley,.....	12	Truancy,	Lowell,	June 23, 1866.	"	1 yr.		
Carroll Churchill,.....	16	Truancy,	Nashua, N. H.,	June 23, 1866.	"	6 mos.		
John O'Brien,.....	8	Truancy,	Lowell,	June 21, 1866.	"	1 yr.		
John J. Furdue,.....	13	Larceny,	New York,	June 28, 1866.	"	3 mos.		
James Boyle,.....	12	Truancy,	Vermont,	June 29, 1866.	"	3 mos.	Dec. 27, 1866.	Not much improved.
Matthew Duffy,.....	15	Truancy,	Lowell,	June 29, 1866.	"	2 yrs.	Dec. 28, 1866.	Not much improved—a bad boy
James Fleming,.....	10	Truancy,	Lowell,	June 30, 1866.	"	6 mos.	Sept. 29, 1866.	A good boy—improved.
John Dunlavy,.....	9	Larceny,	Lowell,	July 2, 1866.	"	6 mos.		
Patrick Hedron,.....	10	Larceny,	Malden, Mass.,	July 2, 1866.	"	6 mos.		
Rosanna Smith,.....	12	Subbornness,	Lowell,	July 3, 1866.	"	6 mos.		
Alexander Patterson,.....	6	Truancy,	Connecticut,	July 17, 1866.	"	2 yrs.	Aug. 5, 1866.	Improved—a good boy.
Reuben Weeks,.....	15	Truancy,	Connecticut,	July 31, 1866.	"	6 mos.		Much improved—a very good boy.
James McElmott,.....	11	Larceny,	Canada,	Aug. 15, 1866.	"	6 mos.		Not much improved.
Denass Florio,.....	10	Willful Trespass,	Lowell,	Aug. 11, 1866.	"	6 mos.		Pardoned—not improved.
Henry Kelley,.....	12	Subbornness,	Lowell,	Aug. 14, 1866.	"	6 mos.		Pardoned—taken by his mother.
Hugh Moran,.....	12	Larceny of fruit,	Lowell,	Aug. 18, 1866.	"	3 mos.		Improved some.
Patrick Gray,.....	10	Larceny of fruit,	Ireland,	Aug. 27, 1866.	"	3 mos.	Nov. 17, 1866.	Improved—a good boy.
Patrick Hayes,.....	8	Larceny of fruit,	Lowell,	Aug. 30, 1866.	"	3 mos.	Nov. 17, 1866.	Improved—a good boy.
Corneilus Sullivan,.....	10	Larceny of fruit,	Lowell,	Aug. 30, 1866.	"	3 mos.	Nov. 27, 1866.	Not improved—bad.
							Nov. 30, 1866.	Improved—a good boy.

John Gray,.....	12	Ireland, I	Aug. 27, 1866.	Police Court.	3 mos.	Improved.
Francis McCanna,....	11	Lorewell,	Aug. 30, 1866.	"	6 mos.	Improved.
Thomas Allen,.....	10	Lorewell,	Aug. 30, 1866.	"	3 mos.	Improved—a good boy.
Marcellus Reno,....	10	Lorewell,	Sept. 6, 1866.	"	2 mos.	Improved.
Francis Gencil,.....	10	Lorewell,	Sept. 6, 1866.	"	2 mos.	Improved.
Frederick Tolopet,...	11	Canada,	Sept. 6, 1866.	"	2 mos.	Improved.
John Ganley,.....	14	Lorewell,	Sept. 13, 1866.	"	3 mos.	Very much impr'd—a good boy.
John Connelley,.....	8	Boston,	Sept. 20, 1866.	"	6 mos.	Improved.
Patrick Barry,.....	15	Ireland,	Oct. 6, 1866.	"	3 mos.	
Barney Curran,.....	10	Lorewell,	Oct. 6, 1866.	"	2 yrs.	
Daniel Curran,.....	10	New Hampshire,	Oct. 10, 1866.	"	1 yr.	
Laura S. Sherwood,...	8	Lawrence,	Oct. 11, 1866.	"	6 mos.	
John Quinn,.....	10	Truancy,	Oct. 23, 1866.	"	6 mos.	
Hugh Mellick,.....	10	Lowell,	Oct. 24, 1866.	"	6 mos.	
John Rogers,.....	8	Ass't. & R.	Oct. 26, 1866.	"	1 yr.	
James Holland,.....	13	Providence, R. I.,	Oct. 29, 1866.	"	6 mos.	
Thomas Moran,.....	10	Lowell,	Oct. 29, 1866.	"	1 yr.	

List of Chelsea Boys in Lowell Reform School in 1866.

James Cochran,.....	6	Chelsea,	June 23, 1866.	Police Court.	2 yrs.	Improved.
Daniel Doyle,.....	13	Chelsea,	Jan. 13, 1866.	"	1 yr.	Very much improved.
Frank H. White,....	12	Ball River,	Jan. 13, 1866.	"	1 yr.	Pardoned—improved some.
Thomas Brown,.....	9	Chelsea,	Jan. 13, 1866.	"	2 yrs.	Pardoned—a good boy.
Owen Moran,.....	10	East Boston,	March 14, 1865.	"	2 yrs.	Absconded—returned same day
John Avery,.....	11	Chelsea,	March 27, 1865.	"	2 yrs.	
Aseneth Kelley,.....	13	East Boston,	May 16, 1865.	"	2 yrs.	
Jeremiah Brown,....	10	Chelsea,	April 13, 1865.	"	1 yr.	Pardoned—a good boy.
Patrick McCanna,....	13	Chelsea,	June 7, 1865.	"	1 yr.	Improved—a good boy.
Thomas Conlan,.....	11	Chelsea,	Oct. 6, 1865.	"	1 yr.	Pardoned—a good boy.
Thomas Coffey,.....	11	East Boston,	Oct. 11, 1865.	"	2 yrs.	Pardoned—not much improv'd.
John T. Sharp,.....	12	Boston,	Oct. 17, 1865.	"	1 yr.	A good boy.
Charles Valley,.....	14	Chelsea,	Oct. 23, 1865.	"	1 yr.	Pard'd—impr'd some—a good boy
William Broderick,...	13	Chelsea,	Nov. 2, 1865.	"	2 yrs.	Improved.
John Farley,.....	10	Russell, Mass.,	Nov. 7, 1865.	"	2 yrs.	Pardoned—improved.
Thomas Henry,.....	10	Chelsea,	Nov. 21, 1865.	"	2 yrs.	Pardoned—not much improv'd.
William Evans,.....	11	Chelsea,	Nov. 21, 1865.	"	2 yrs.	Improved.
Michael Hogan,.....	10	Chelsea,	Nov. 21, 1865.	"	2 yrs.	Pardoned—improved.
John Lee,.....	16	N. York,	Nov. 23, 1865.	"	1 yr.	Pardoned—not much improved.
Thomas Welch,.....	10	Roxbury,	Nov. 24, 1865.	"	2 yrs.	Pardoned—improved.
Corneilus Connors,...	12	Chelsea,	Feb. 26, 1866.	"	2 yrs.	
John Farley,.....	11	Ireland,	March 22, 1866.	"	1 yr.	
Daniel S. Norton,....	13	Chelsea,	April 6, 1866.	"	2 yrs.	Pardoned—a good boy—impr'd.
James Connors,.....	12	Chelsea,	April 19, 1866.	"	1 yr.	
George M. White,....	13	Chelsea,	Oct. 5, 1866.	"	1 yr.	
William Welch,.....	10	Chelsea,	Oct. 29, 1866.	"	2 yrs.	

At the commencement of the year, the number in this department was thirty-two from Lowell and twenty from Chelsea, fifty-two in all. There have been received during the year sixty-three from Lowell and six from Chelsea, making sixty-nine in all. There were discharged and left during the year fifty-five from Lowell and eighteen from Chelsea, in all seventy-three. The number remaining January 1st, 1867, was forty from Lowell and eight from Chelsea, making a total of forty-eight.

Of the whole number committed during the year from both cities, twenty-six were sentenced for truancy, twenty-two for larceny, seven for stubbornness, three vagrants, eight truants, one for trespass, and two for assault and battery.

Of those who have left the school, forty-nine of the Lowell boys were discharged by expiration of sentence, one absconded who was not returned and five received pardons. Of the Chelsea boys, eleven have received pardons and seven were discharged by expiration of sentence.

Of the forty-eight who remain in the school, seventeen are addicted to the use of tobacco, rum and profanity, five to an occasional glass and nine are profane swearers; the remaining seventeen are boys of good habits.

There have been a number of cases of absconding on the part of the scholars; when found, they are returned here to finish out the time for which they are sentenced; in many cases when they abscond, they are secreted by their parents or friends until the time of their sentence has expired. If the law could be so changed that they would be liable (if absconding), to serve out the length of time for which they were committed even after the time of their sentence had expired, I think it would have the

effect to stop in a great measure, if not entirely, such cases.

The school is governed in all respects as formerly; everything is done that can be, to improve the mental and moral condition of these poor unfortunate children that are committed to our care. Religious services are held on the Sabbath, commencing at 2 o'clock, P. M. Immediately following is Sabbath school, the children all being required to take part in the exercises, who are able to read.

The same books have been used as those used last year, viz: Bumsted's series; Colburn's First Lessons in Arithmetic; Greeleaf's Common School Arithmetic; Colton & Fitch's Modern and Introductory Geography. With the consent of the committee we propose to introduce Sargent's Standard Series, for 1867.

Most of the boys have made good improvement during the year. The class of boys have not been what they were in 1865, in point of intellect; for this reason it has been impossible for the teacher to show that proficiency in the school he would like.

The whole number of punishments inflicted upon the pupils during the year was one hundred and forty-two, and for the following offenses, viz:

- 23 for playing in sleeping-room, loss of one meal each.
- 18 for playing in work-shop, loss of one meal each.
- 68 for imperfect lessons, loss of one meal each.
- 6 for absconding, in cell 3 days each.
- 20 for playing in work-shop, in cell 2 days each.
- 4 for playing in sleeping-room, 2d offense, in cell 2 days each.
- 2 for quarreling in play-ground, in cell 2 days each.
- 1 for throwing stones at birds, in cell 2 days.

EXPENDITURES.

The expense of this department is drawn from the appropriation for the support of paupers. The purchases are all made and their food prepared in common, although in all other respects they are entirely separate.

From the best estimate I am able to make, the whole expense for maintaining the same, including salaries of Teacher and Chaplain, board and clothing for the pupils, bedding, fuel and lights, books and stationery, and every other item for the same, except interest on the cost of the establishment, for the year, was.....	\$3,827.61
Deduct three-hundred dollars for labor of boys, charged to the support of Alms-House,.....	300.00
	<hr/>
Leaving the actual expense of the School,.....	\$3,527.61

The average number supported for the year was 52, and the expense of each for the year was \$67.84, or \$1.30 1-2 per week, for each pupil.

CONCLUSION.

In conclusion, allow me to say that I have received every kindness that I might expect from every one whose duty it has been to provide for the poor and friendless, and the boys in the House of Reformation and Employment, for the past year, and I wish here to express my thanks to his Honor the Mayor, and the Overseers of the Poor for the kindness always shown me, and for the prompt manner in which they have always furnished whatever was necessary for the use of the unfortunate under my charge.

Respectfully submitted,

LORENZO PHELPS,

*Superintendent of Alms-House, and
House of Reformation for Juvenile Offenders.*

LIST OF PERSONAL PROPERTY

BELONGING TO THE CITY OF LOWELL, IN CARE OF LORENZO PHELPS,
SUPERINTENDENT OF ALMS-HOUSE AND HOUSE OF REFORMATION
FOR JUVENILE OFFENDERS, JANUARY 1, 1867.

1 Span Team Horses, \$600.00, 1 Horse, \$250.00,.....	\$ 850.00
1 Pair of Oxen, \$350.00, 7 Cows, \$60.00 each,.....	770.00
20 Pigs, \$10.00 each, 5 Hogs, at \$30.00 each,.....	350.00
30 Tons English Hay, at \$30.00 per ton,.....	900.00
15 Tons Meadow Hay, at \$14.00 per ton,.....	210.00
8 Tons Oat Straw, at \$15.00 per ton,.....	120.00
30 Tons Coal, at \$11.25 per ton,.....	337.50
Lot Corn Fodder,.....	40.00
700 Bushels Potatoes, at 70 cents per bushel,.....	490.00
225 Bushels Corn, at \$1.50 per bushel,.....	337.50
10 Bushels Beans, at \$3.75 per bushel,.....	37.50
8 Bushels Rye, at \$1.00 per bushel,.....	8.00
70 Cords Wood, at \$6.00 per cord,.....	420.00
3200 Lbs. Pork and Hams, at 14 cents per lb.,.....	480.00
200 Lbs. Beef and Mutton, at 8 cents per lb.,.....	16.00
Lot of Groceries,.....	300.00
30 Hens, at 50 cents each,.....	15.00
Lot of Tools in Carpenter's Shop,.....	40.00
Lot of Tools and Iron in Blacksmith's Shop,.....	200.00
1 Grindstone, \$6.00, 1 Ox-drag, \$4.00,.....	10.00
Lot of Coffins,.....	300.00
Lot of Furniture,.....	500.00
Lot of Clothing and Bedding,.....	1200.00
1 Two-Horse Wagon, \$35.00, 1 one-horse Wagon, \$10.00,..	45.00
1 Night-soil Wagon,.....	100.00
2 Express Wagons, at \$50.00 each, 1 Carryall, \$300.00,...	400.00
1 Sleigh, \$60.00, 1 Sleigh, \$15.00,.....	75.00
1 Pair Double Harness, 2 Single do., and 1 Cart do.,.....	80.00
1 Mowing Machine, \$50.00, 1 Horse Rake, \$25.00,.....	75.00
1 Horse-Cart and 2 Ox-Carts,.....	70.00
1 D. Harness and 8 Chains,.....	10.00
7 Scythes and Snaths,.....	8.50
3 Yokes and 12 Chains,.....	25.00
12 Hay Forks and 12 Rakes,.....	12.00
20 Hoes, 4 Iron Bars and 6 Axes,.....	18.00
4 Plows, 12 Shovels, 3 Manure Forks and 1 Cultivator,....	35.00
3 Harrows and 2 Cradles and Scythe,.....	30.00
Lot Paints, Oil and Hot-bed Glass,.....	60.00
Lot Curry Combs and Brushes,.....	2.00
450 Bushels Beets, at 40 cents per bushel,.....	180.00
1000 Cabbages, at 5 cents each,.....	50.00
2 Tons Carrots, at \$20.00 per ton,.....	40.00

\$9,247.00

CITY DOCUMENT.

CITY OF



LOWELL.

ANNUAL REPORT

OF THE

Superintendent of Burials,

FOR THE YEAR 1866.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, February 12, 1867.

Read and sent to the Common Council.

J. H. McALVIN, *City Clerk.*

IN COMMON COUNCIL, February 12, 1867.

Received and read.

GEO. GARDNER, *C. C. C.*

REPORT.

CITY OF LOWELL.

OFFICE OF SUPERINTENDENT OF BURIALS, }
January 26, 1867. }

TO THE CITY COUNCIL:

In accordance with a City Ordinance, I have the honor to submit a report of the mortality within the City of Lowell for the year 1866.

The total number of deaths for the year was seven hundred and forty-nine, of which number three hundred and thirty-eight were males, and four hundred and eleven females; the preponderance of females being above the usual average. There were one hundred and seventy-four more deaths than in 1865, and a larger number than in any year since 1857. There were fifteen more than the average for the last ten years. It would be impossible to give the per cent. of deaths to the population, on account of the changes that have taken place in the population during the last five years. It is probable, however, that the per cent. is not above the average.

Among some of the most prevalent diseases was small pox, which, in the early part of the year, prevailed to quite an extent. There were indications that it would not be easily checked, but happily it disappeared entirely during the summer months. It carried away fourteen persons, and four died from varioloid. Measles, from which there were fourteen deaths, prevailed quite extensively. There were only two deaths from scarlet fever—less than in any year since 1850.

Dropsy of brain numbered twenty-five deaths—a greater number than for five years, yet about the annual average.

The number of deaths from cholera infantum was thirty-two, which is four less than the decennial average.

Consumption, as usual, takes away the greater number. One hundred and twenty-eight have died from this disease the past year, which is five more than in 1865; but the number is much less than the average.

There were four deaths reported from cholera, which prevailed only to a small extent; though cholera morbus, from which there were only seven deaths, sometimes partook of the symptoms of cholera.

Dysentery took away more than the usual number (being twenty-one), more than for seven years; yet it just equals the average for the past ten years.

Diphtheria has more than doubled itself from 1865, there being eighteen deaths from this cause.

There was one death from typhus fever, and twenty-three from typhoid fever, which is more than for five years, and above the average.

Old age takes away thirty-three persons—one-half more than last year. There were also many deaths of aged persons from other diseases, so that old age cannot be taken as a criterion of the number of aged who have died. There were twenty-five deaths of persons between eighty and ninety years, and five deaths above ninety years, viz: Daniel O'Brien, ninety-nine years, Lee Street; Mehitable O. Allen, ninety-two, Hurd Street; Mary Garvey, ninety-two, Adams Street; Louis Cluche, ninety-one, Middlesex Street; and Mary Maguire, one hundred and one, Middle Street.

There were three deaths at the Alms House during the year: Jesse Papps, of heart disease; Andrew Burnett,

of atrophy, and Hannah Clark, of consumption—all in the last stages of disease when carried there.

The occupation of the adult portion has not been fully reported ; therefore it would be impossible to give the pursuits followed by them.

Of the adults, one hundred and eighty-three were or had been married.

The tables will give a general view of the causes of death, the age and sex of those who have passed away, and a comparison of some of the more fatal diseases with past years.

Respectfully submitted,

GEO. E. PINKHAM,

Superintendent of Burials.



TABLE 1.

EXHIBITING THE NUMBER OF DEATHS IN THE CITY OF LOWELL IN EACH MONTH DURING THE YEAR 1866, WITH THE CAUSE, AGE AND SEX.

[illegible]



TABLE 2.

DEATHS IN EACH MONTH FOR THE LAST TEN YEARS.

MONTHS.	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	Total for each month.
January.....	69	46	58	49	67	52	79	52	45	72	589
February.....	51	44	53	55	70	55	62	44	49	55	548
March.....	77	51	60	75	61	48	74	60	39	61	506
April.....	86	43	73	62	62	60	55	62	42	58	603
May.....	68	43	54	61	54	50	60	54	37	61	542
June.....	48	53	55	49	49	45	58	48	40	56	501
July.....	77	53	66	65	66	31	52	56	59	72	597
August.....	75	76	82	78	90	66	64	79	69	58	737
September.....	89	74	78	71	58	73	58	47	43	67	658
October.....	77	50	53	54	51	50	44	44	55	51	529
November.....	50	40	61	43	38	55	43	49	44	72	495
December.....	41	53	46	58	47	56	46	38	53	66	504
TOTAL.....	818	626	739	720	713	641	695	633	575	749	6,909

TABLE 3.

NUMBER OF DEATHS FROM SOME OF THE MORE PREVALENT DISEASES IN THE
LAST TEN YEARS.

DISEASES OR CAUSES OF DEATH.	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	Total
Dropsy of Brain.....	34	32	32	31	14	17	17	15	19	25	236
Cholera Infantum.....	27	43	38	39	49	31	20	31	50	32	360
Consumption.....	183	148	176	154	150	141	143	153	123	128	1499
Croup.....	23	10	24	24	31	22	26	12	12	20	204
Diphtheria.....	-	-	-	-	1	15	39	34	7	18	114
Disease of Heart.....	15	12	22	22	24	22	15	8	15	24	179
Dysentery.....	72	36	26	9	10	3	10	11	13	21	211
Infantile.....	59	41	59	43	40	39	29	27	23	21	386
Inflammation of Lungs..	35	35	38	54	31	21	43	37	24	25	343
Measles.....	17	-	-	7	12	-	-	23	-	12	71
Scarlet Fever.....	84	13	46	11	14	53	85	17	26	2	351
Typhoid Fever.....	43	12	15	11	28	16	16	17	17	23	198

TABLE 4.

DEATHS IN LOWELL SINCE ITS INCORPORATION.

1827.....	50	1841.....	434	1855.....	766
1828.....	32	1842.....	473	1856.....	790
1829.....	66	1843.....	364	1857.....	818
1830.....	102	1844.....	362	1858.....	626
1831.....	117	1845.....	363	1859.....	739
1832.....	178	1846.....	690	1860.....	720
1833.....	211	1847.....	649	1861.....	713
1834.....	221	1848.....	825	1862.....	641
1835.....	229	1849.....	903	1863.....	695
1836.....	253	1850.....	492	1864.....	633
1837.....	301	1851.....	629	1865.....	575
1838.....	407	1852.....	604	1866.....	749
1839.....	340	1853.....	734	.....	.....
1840.....	407	1854.....	834	.....	.....

TABLE 5.

NATIVITY OF THOSE DECEASED WITHIN THE YEAR (1866).

Born in the United States	473
Ireland.....	180
Canadas.....	35
England.....	24
Scotland.....	7
Nova Scotia	1
New Brunswick.....	1
Unknown.....	28
Total,.....	749

City Document.

CITY OF LOWELL.



ANNUAL REPORT

OF THE

Superintendent of Streets,

FOR THE YEAR

1866.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, January 18, 1867.

Read and accepted; sent to the Common Council.

JOHN H. McALVIN, City Clerk.

IN COMMON COUNCIL, January 15, 1867.

Read and accepted in concurrence.

GEO. GARDNER, C. C. C.

REPORT.

OFFICE OF SUPERINTENDENT OF STREETS, }
DECEMBER 31, 1866. }

TO THE CITY COUNCIL:

Gentlemen:—In compliance with my duty as Superintendent of Streets, I herewith submit the fifth annual report of the condition of the streets of the city, and of what has been done during the year ending December 31st, 1866.

The amount appropriated by the City for Roads and Bridges,	
for the year, was.....	\$25,000.00
The balance standing to the credit of this appropriation at the	
beginning of the year, was.....	3,544.00
Amount received for material, labor, street serapings, &c.,...	2,978.81
Making a total of.....	<u>\$31,522.81</u>

The amount expended during the year, and which has been	
charged to this appropriation, is.....	\$39,226.58

From which are to be deducted the following amounts charged to other appropriations:

For Schools,.....	\$3,981.05
“ School Houses,.....	115.09
“ Reserved Fund,.....	2,126.84
“ Paupers,.....	1,493.65
“ Police,	384.10

For Fire Department,.....	961.31
“ Sewers and Drains,.....	516.16
“ Commons,.....	838.98
“ Lighting,.....	310.27

Total,.....\$10,727.46

Actual expenditure for the year,.....	\$28,499.12
Transferred from Permanent Loan,.....	2,424.08
Undrawn,.....	5,447.77

There has been a large amount expended for repairs on streets, during the present year, most of which has been expended in making permanent repairs on the following streets:

Moore street has been graded from Gorham to Lawrence streets, 400 feet in length of it have been McAdamized, and 573 square yards of gutter paved, and also a gravel sidewalk made on the northerly side. Pawtucket street has been McAdamized from School to Salem streets, and 2,040 square yards of gutter paved. The rubble paving on Market street has been taken up, and the street McAdamized for 1,200 feet, at an average thickness of sixteen inches, and 1,330 square yards of gutter paved, and all who have occasion to travel upon it, I am confident, will concur that it is a decided improvement. Bridge street has been McAdamized from Central bridge to Eighth street, a distance of 1,350 feet. Merrimack street has been McAdamized between Cabot and Suffolk streets, a distance of 561 feet, and 2,310 square yards of gutter paved. Andover street has been McAdamized for a distance of 1,075 feet, and Lawrence street, which has been one of the worst streets in the city, every spring and fall, has been thoroughly repaired, by being filled up to its established grade, from Wamesit street to Whipple's

canal, which required an average depth of filling of sixteen inches; the gutters have been paved, and cinder sidewalks made on both sides of the street, and I think that all who have occasion to travel upon it, will say that it is now one of the best streets in the city. All of the foregoing streets will require but very little done to them for a number of years.

During the year the following streets have been McAdamized in whole or part as follows:

Andover Street,.....	1,075	Feet in Length,	2,747	Square Yards.
Bridge Street,.....	1,350	"	4,650	"
Dutton Street,.....	378	"	1,315	"
Lawrence Street,.....	1,988	"	4,417	"
Market Street,.....	1,200	"	4,666	"
Merrimack Street,.....	561	"	2,310	"
Moore Street,.....	430	"	573	"
Pawtucket Street,.....	2,040	"	5,666	"
Railroad Street,.....	300	"	600	"
Rock Street,.....	678	"	1,506	"

Making 10,000 feet in length of street, and 28,450 square yards, and 2,565 loads of stone chips, which have been laid from eight inches to two feet in thickness, according to the locality, and the amount of travel thereon. Besides this amount, there have been about one hundred loads of the stone chips distributed in small quantities upon the various streets, which has required the crusher to be kept in operation 108 days, making an average of 24.75 loads crushed per day. In the month of May the city purchased the ledge on the easterly side of Fletcher street, and known as the Whiting Ledge, at a cost of \$1,956.68, from which all the stone used upon the streets during the year has been taken, excepting seventy-five loads of granite chips, which have been taken

from the stone-yard, and in getting out the stone for the crusher, I have got out 342 perch of mortar stone, which has been sold to different parties for \$427.50.

I have caused the gutters of the following streets to be paved during the year, with the number of square yards paved in each.

Dutton Street,.....	297	Square Yards.
Favor Street,.....	85	“ “
Lawrence Street,.....	1,189	“ “
Market Street,.....	1,330	“ “
Merrimack Street,.....	532	“ “
Moore Street,.....	478	“ “
Pawtucket Street,.....	2,040	“ “

Making a total of.....5,951 Square Yards.

The amount expended for Sewers and Drains during the year has been \$516.16, which has been expended for the usual repairs, and for putting in a drain for surface-water, in Paige street, from a point opposite the passageway west of Simpson's block to the sewer on the easterly side of Bridge street, a distance of about 180 feet, and for putting in six cesspoolss on Lawrence street, two on Bridge street, two on Paige street, and one each on Andover and Favor streets.

The amount expended for repairs of Sidewalks during the year has been \$960.44. Sidewalks have been laid on both sides of Favor street, and on the easterly side of Worthen street. Sidewalks of edge-stones and cinders have been ordered on both sides of Lawrence street, from Wamsit street to Whipple's canal, which has not been done, having been ordered too late in the season.

The following are the amounts that have been expended upon the several Bridges during the year.

On Central Bridge,.....	\$1,382.73
“ East Merrimack Street Bridge,.....	217.41
“ Moody Street Bridge,.....	214.95
“ Pawtucket Street Bridge,.....	20.80
Total,.....	<u>\$1,835.89</u>

Central, and the northerly half of East Merrimack Street Bridges have been double-planked, and I would recommend that the southerly half of the latter be double-planked early in the spring.

The following is a list of articles belonging to the city, and which are under my care, and connected with the Street Department.

12 Horses,.....	\$2,600.00
13 Harnesses,.....	300.00
8 Carts,.....	500.00
3 Wagons,.....	300.00
1 pair Draft-wheels,.....	75.00
9 Sleds,.....	320.00
50 feet Flagging, at 35 cents per foot,.....	17.50
1 Hydrant,.....	20.00
28 cords of Wood, at \$8.00 per cord,.....	224.00
53 cords of Wood, at \$6.00 per cord,.....	318.00
300 cords of Wood, at \$4.00 per cord,.....	1,200.00
50 cords of Wood, at \$2.25 per cord,.....	112.50
120 tons of Coal, at \$11.50 per ton,.....	1,380.00
4 tons of Hay, at \$25.00 per ton,.....	100.00
15,000 Brick, at \$11.00 per M.,.....	165.00
1,000 feet of Lumber.....	35.00
500 feet of Oak,.....	15.00
<i>Amount carried forward,.....</i>	<u>\$7,682.00</u>

<i>Amount brought forward</i> ,.....	\$7,682.00
1 Stone-cutter and Engine, &c.,.....	2,200.00
1 Stone Roller,.....	126.00
1 Horse Wagon,.....	25.00
1 Wagon Harness,.....	25.00
1 Sleigh,.....	25.00
30 Lanterns, at \$2.00 each,	60.00
12 Shovels,	12.00
24 Snow Shovels,.....	24.00
7 Picks,.....	7.00
6 Iron Bars,.....	10.00
200 lbs. Drills, (steel),.....	30.00
6 Striking Hammers,.....	12.00
1 Stone Hammer,.....	1.00
4 Stone Rakes,.....	4.00
4 Hoes,.....	3.00
1 Plow,.....	8.00
12 Hay-rakes,	3.00
6 Hay-forks,.....	6.00
3 Scythes and Snaths,.....	5.00
4 Draft Chains,.....	8.00
1 Stone Drag,.....	5.00
1 Stone Truck Drag,.....	25.00
3 Axes,.....	4.50
Total,.....	<u>\$10,810.50</u>

At the commencement of the year there were two hundred and thirty-five gas lamps, and sixty-nine oil and fluid lamps, making a total of three hundred and four. Forty-eight new lamps have been added during the year, twenty-four gas lamps, and have been located as follows:

One on the corner of Seventh and Read Streets.

One on the corner of Seventh and Bridge Streets.

One on the corner of Sixth and Bridge Streets.

One on the corner of Fifth and Bridge Streets.

One on First Street.

One on Summer Street, between Favor and South Streets.

One on the corner of Cross and Suffolk Streets.
One on the corner of Broadway and Suffolk Streets.
One on the corner of Broadway and Adams Streets.
One on the corner of Broadway and Wilder Streets.
One on the corner of Broadway and Rolfe Streets.
One on the corner of Broadway and Pawtucket Streets.
One on Pawtucket Street, at the head of Wilder Street.
One on Pawtucket Street, at the head of Walker Street.
One on Pawtucket Street, near Bowers'.
One on Pawtucket Street, at the head of Wanalancit Street.
One on Butterfield Street, near G. L. Huntoon's.
One on Lowell Street, near Fenwick Street.
One on Wilder Street, in front of E. H. Hadley's.
One on Linden Street, at the head of Merrill's Court.
One on the corner of Moody and Worthen Streets.
One on the corner of Seventh Street and Methuen Road.

And twenty-four oil and fluid lamps, and they have been located as follows:—

One on the corner of Bridge and Eighth Streets.
One on School Street, near the School House.
One on the corner of School and Varney Streets.
One on the corner of School and Butterfield Streets.
One on the corner of Butterfield and Mt. Pleasant Streets.
One on Wilder Street, near J. P. Garland's.
One on the corner of Wilder and Kemp Streets.
One on the corner of Walker and Kemp Streets.
One on Broadway, near the Canal.
One on the corner of Adams and Lagrange Streets.
One on Adams Street, between Lagrange and Suffolk Streets.
One on the corner of Howard and Railroad Streets.
One on Howard Street, opposite the School House.
One on Hale Street, at the head of Grand Street.
One on the corner of Hale and Cambridge Streets.
One on Chapel Street, in front of J. L. Rollins'.
One on the corner of Central and Chapel Streets.
One on the corner of Central and Crosby Streets.
One on Lawrence Street, at the head of Whipple Street.
One on Rock Street, between Fletcher and Willie Streets.

One on Adams Street, near Lagrange Street.

One on the corner of Chelmsford and Parker Streets.

One on Chelmsford Street, at Gates' Tannery.

Making the whole number of lamps now in use in the city, three hundred and fifty-two, two hundred and fifty-nine of which are gas lamps, and the remainder, ninety-three, are oil and fluid lamps.

The expense of lighting and taking care of the lanterns, &c., &c.,—

During the year, has been.....	\$ 748.11
For Horse-keeping and Shoeing.....	212.33
“ repairing Wagon and Harnesses.....	28.25
“ Gas, 257,347 hours, to Dec. 1, 1866, at $1\frac{3}{4}$ cents	
per hour.....	3,538.52
“ Fluid and Oil, 762 $\frac{1}{4}$ gallons.....	417.46
“ new Lanterns, Lamps, Posts, Gas Fixtures, &c.,..	1,026.93
“ repairing Gas Fixtures, Lamps, Posts, Lanterns,	
Painting, &c., &c.,.....	983.61
Total,.....	<u>\$6,861.11</u>

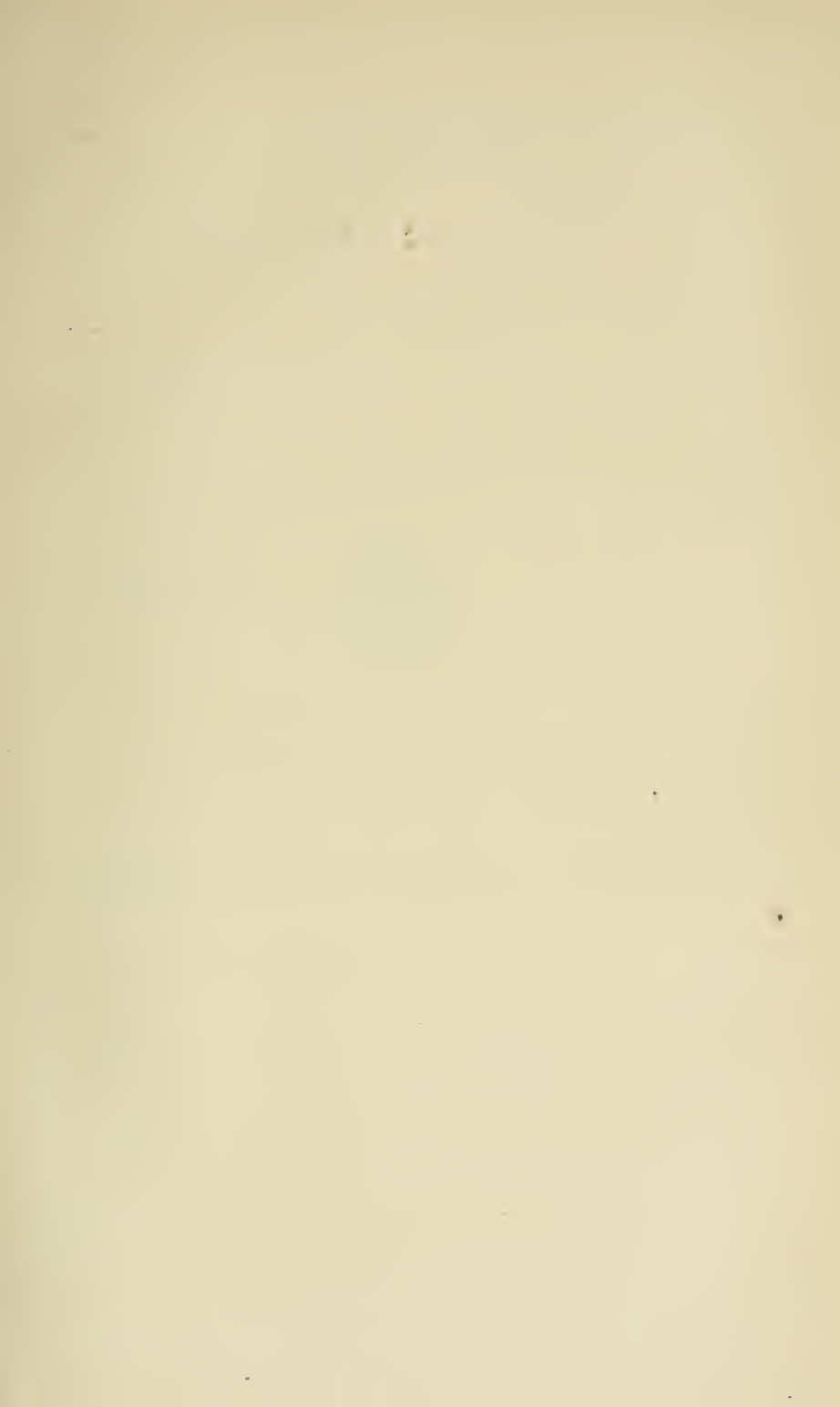
The value of all the property in this department under my care January 1st, 1867,—

Consisting of all the Street Lamps, and Tools for	
making repairs on the same, is.....	\$4,765.09
1 Horse.....	225.00
1 Wagon.....	15.00
1 Sleigh,	5.00
1 Harness.....	25.00
10 gallons Fluid, at 50 cents per gallon,.....	5.00
	<u>\$5,040.09</u>

Respectfully submitted.

LUTHER RICHARDS,

Superintendent of Streets.



CITY DOCUMENT.

CITY OF



LOWELL.

ANNUAL REPORT

OF THE

BIRTHS, MARRIAGES AND DEATHS,

FOR THE YEAR 1866.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, February 12, 1867.

Read and sent to the Common Council.

J. H. McALVIN, *City Clerk.*

IN COMMON COUNCIL, February 12, 1867.

Received and read.

GEO. GARDNER, *C. C. C.*

REPORT.

CITY OF LOWELL.

CITY CLERK'S OFFICE,
February 12, 1867. }

TO THE CITY COUNCIL :

Gentlemen :—I have the honor to present herewith the Annual Report of the Births, Marriages and Deaths in the City of Lowell, for the year 1866.

BIRTHS.

The whole number of births in the City of Lowell, during the year 1866, was eight hundred and ten, being an increase of one hundred and forty-one from the births of 1865. The sexes were nearly equal, being three hundred and ninety-six males, and four hundred and fourteen females. The fathers of five hundred and twenty-two were born in foreign countries. The fathers of two hundred and eighty-eight were born in the United States. The mothers of five hundred and eight were born in foreign countries. The mothers of three hundred and two were born in the United States. The number of colored children born, was two. There were five cases of twin births, during the year. In one case, both children were males ; in three cases, both were females ; and in one case, there was one male and one female child.

MARRIAGES.

The whole number of intentions of marriage recorded and certificates issued was six hundred and twenty-seven,

being an increase of two hundred and nineteen from the certificates issued in 1865. The whole number of Marriages solemnized in Lowell was six hundred and twenty, exclusive of twenty-seven which were recorded in this office, although the marriage was solemnized elsewhere.

The following table shows the marriages in each month, and quarter of the year :

January	64	} 129	July	51	} 155
February	49		August.....	50	
March.....	16		September.....	54	
April	50	} 154	October.....	66	} 209
May	56		November.....	91	
June.....	48		December.....	52	

The marriages were solemnized by the following named persons, to wit :

Rev. John G. Adams.....	Universalist.....	10
A. Blanchard.....	Orthodox.....	22
J. W. Backus.....	do.	3
James Dean.....	.....	1
J. Drew	Baptist.....	28
Theodore Edson.....	Episcopal.....	46
C. L. Hutchins.....	do.	6
E. B. Foster.....	Orthodox.....	13
A. P. Foster.....	do.	3
A. McKeown.....	Methodist.....	23
J. O. Peck.....	do.	32
W. E. Stanton.....	Baptist.....	8
O. Street.....	Orthodox.....	14
J. J. Twiss.....	Universalist.....	28
G. F. Warren.....	Baptist.....	38
G. N. Webber	Orthodox	10
S. F. Upham.....	Methodist.....	38
P. Crudden.....	Catholic	106
C. F. Grace.....	do.	20
D. C. Moran.....	do.	8
John O'Brien.....	do.	83

A. Romano.....	do.	20
C. A. Boissennault.....	do.	1
Non-resident Clergymen.....		29
Justices of the Peace.....		57

The following are the birth-places of those joined in marriage :

Born in United States.....	782
Ireland	325
Canadas.....	73
England.....	48
Scotland	23
New Brunswick.....	12
Nova Scotia.....	10
Prince Edward's Isle.....	3
France.....	3
Newfoundland	2
Portugal	1
Mexico.....	1
Poland	1

Of the males, five hundred and thirty-one were married for the first time, one hundred and eight for the second time, seven for the third time and one for the fourth time.

Of the females, five hundred and eighty-six were married for the first time, fifty-eight for the second time, and three for the third time.

Males married under twenty-one years of age, eight; females married under eighteen years of age, eleven.

The occupations of the grooms were as follows :

Mechanics.....	214
Laborers.....	92
Operatives	84
Other occupations.....	254

DEATHS.

The whole number of Deaths in the City of Lowell during the year 1866, was seven hundred and forty-nine, being an increase of one hundred and seventy-four from the deaths in 1865. Males, three hundred and thirty-eight; females, four hundred and eleven.

The deaths in each month were as follows :

January	72	July.....	72
February.....	56	August	58
March	61	September	67
April	58	October.....	51
May	61	November.....	72
June	56	December....	66

The birth-places of those who died were as follows, to wit :

Born in the United States.....	473
Ireland.....	180
Canadas.....	35
England.....	74
Scotland.....	7
Nova Scotia.....	1
New Brunswick.....	1
Unknown.....	28

For a more particular statement of the causes of death, together with valuable statistical tables, I refer you to the Annual Report of the City Physician.

Copies of all the foregoing records have been made and transmitted to the Secretary of the Commonwealth, according to law.

Respectfully submitted,

JOHN H. McALVIN,

City Clerk.

T A B L E

SHOWING THE NUMBER OF BIRTHS, MARRIAGES AND DEATHS, IN THE CITY
OF LOWELL, FOR THE LAST TWENTY-THREE YEARS.

YEAR.	BIRTHS.	MARRIAGES.	DEATHS.
1844.....	661.....	319.....	362
1845.....	660.....	399.....	363
1846.....	772.....	591.....	690
1847.....	718.....	659.....	649
1848.....	794.....	516.....	825
1849.....	671.....	320.....	903
1850.....	965.....	674.....	492
1851.....	1017.....	669.....	629
1852.....	1003.....	669.....	604
1853.....	1089.....	742.....	734
1854.....	1088.....	806.....	834
1855.....	1032.....	685.....	766
1856.....	1032.....	633.....	790
1857.....	1044.....	586.....	818
1858.....	819.....	467.....	626
1859.....	978.....	496.....	739
1860.....	1071.....	497.....	720
1861.....	934.....	459.....	713
1862.....	759.....	368.....	641
1863.....	655.....	302.....	695
1864.....	656.....	334.....	633
1865.....	669.....	422.....	575
1866.....	810.....	647.....	749

City Document.

CITY OF LOWELL.



ANNUAL REPORT

OF THE

CITY SEALER,

FOR THE YEAR

1866.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, January 4, 1867.

Read and placed on file.

JOHN H. McALVIN, City Clerk.

Knapp & Morey, Prs.

REPORT.

OFFICE OF THE CITY SEALER, }
JANUARY 4, 1867. }

TO THE HONORABLE MAYOR AND ALDERMEN:

Gentlemen:—The subscriber has proved and sealed during the year 1866—

8 Hay and Coal Scales,
423 Platform Scales, Steelyards and Balances,
431 Cans and Measures.

And has received for fees for—

Sealing Scales,	\$250.76
Sealing Cans and Measures, . . .	14.17
	<hr/>
	\$264.93

Respectfully submitted.

JOHN A. KNOWLES, JR.,

City Sealer.

City Document.

CITY OF LOWELL.



ANNUAL REPORT

OF THE

Superintendent of the City Scales,

AND

MEASURER OF WOOD AND BARK,

For the Year 1866.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, January 4, 1867.

Read and placed on file.

JOHN H. McALVIN, City Clerk.

Knapp & Morey, Prs.

REPORT.

OFFICE OF THE SUPERINTENDENT OF CITY SCALES,
AND MEASURER OF WOOD AND BARK, }
JANUARY, 1867. }

TO THE HONORABLE MAYOR AND ALDERMEN:

Gentlemen:—I herewith present my report as Superintendent of the City Scales, and Measurer of Wood and Bark.

There have been weighed at the City Scales, from May 12th to December 1st, 1866—

1253	loads of Hay,	. .	weighing	964 tons,	534 lbs.
249	"	Straw,	"	153 "	567 "
20	"	Coal,	"	29 "	1177 "
31	"	Coal, for City,	"	49 "	1727 "
26	"	Iron,	"	31 "	961 "
12	"	Rags,	"	13 "	1291 "
5	"	Wagons,	"	1 "	1049 "
1	"	Shorts,	"	1 "	60 "
5	"	Potatoes,	"	3 "	1520 "
56	"	Carrots,	"	80 "	77 "
1	"	Stalks,	"		667 "
4	"	Pumpkins,	"	2 "	227 "
1	"	Oats,	"		1280 "

17 loads of Corn,	. .	weighing	17 tons,	757 lbs.
44 " Squashes,		"	35 "	1982 "
56 Horses,		"	27 "	440 "
7 yoke of Oxen,		"	11 "	458 "
54 Pigs,		"	2 "	1512 "

Received for weighing, \$325.32

There were measured—

4790 loads of Wood, measuring	. . . .	4826 cords.
36 " Manure, "	. . . .	21 6-8 "

Received for measuring, \$241.25

The total amount for weighing and measuring is \$566.57

SYDNEY DAVIS,

Superintendent of City Scales.

City Document.

CITY OF LOWELL.



ANNUAL REPORT

OF THE

Inspector of Milk,

FOR THE YEAR

1866.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, December 28, 1866.

Read and placed on file.

JOHN H. McALVIN, City Clerk.

Knapp & Morey, Prs.

REPORT.

OFFICE OF INSPECTOR OF MILK, }
DECEMBER 27, 1866. }

TO THE HONORABLE MAYOR AND ALDERMEN:

I herewith present my report as Inspector of Milk, for the year ending December 31st, 1866, as follows:

Whole number of names of dealers in milk entered	
in the books of the Inspector,	34
Lowell,	4
Dracut,	13
Pelham,	4
Chelmsford,	6
Dunstable,	1
Westford,	1
Tewksbury,	4
Middlesex,	1
	— 34

GEORGE E. STANLEY,

Inspector.

City Document.

CITY OF LOWELL.



ANNUAL REPORT

OF THE

Superintendent of Public Buildings,

FOR THE YEAR

1866.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, January 15, 1867.

Received and read; sent to the Common Council.

JOHN H. McALVIN, City Clerk.

IN COMMON COUNCIL, January 15, 1867.

Received and read.

GEO. GARDNER, C. C. C.

REPORT.

OFFICE SUPERINTENDENT OF PUBLIC BUILDINGS, }
JANUARY 10, 1867. }

TO THE CITY COUNCIL:

Gentlemen:—In compliance with an ordinance requiring the Superintendent of Public Buildings to report annually in the month of January, the condition of the Buildings belonging to the City, and the expenditures thereon, I hereby submit the following report:

PUBLIC BUILDINGS.

The amount credited to repairs of Public Buildings for the past year, was.....	\$5,985.88
Expended,.....	3,150.59
	<hr/>
Balance undrawn January 1, 1867,.....	\$2,835.29

Expended as follows:

Entrance to Huntington Hall on Shattuck Street,.....	\$879.59
On the Armories,.....	350.73

The remainder was for shingling the shed at the City Stable and the repair of the Stable and Market House, and City Scales and Ward Rooms. The buildings here referred to are in good condition, except the outside of the Ward Rooms in wards six and four, which need painting on the outside, and I would recommend they should be painted this season.

SCHOOL HOUSES.

Appropriated,	\$6,812.59
The amount expended, was.....	5,495.90
	<hr/>
Balance unexpended,.....	\$1,316.69

The amount expended on the buildings and fences around the school-yards has been quite large the past year; many of the houses and fences I found in a very bad condition one year ago, but they have been put into very good repair. There has been built about three thousand feet of tight board fence the past year, and six out-houses for the schools have been built. There have been outside windows put on to the North and West sides of all of the Grammar school houses the past year, and one line of extra steam pipes put in all the school rooms of the Grammar schools. There have been six of the Primary school houses painted the past year, and the roofs of two have been slated: one on Fayette street, and one on Chapel street. I would also suggest that the old pine benches in two of the rooms at the South Grammar school be removed and new benches be put in their places.

The top floors in the South and North Grammar school houses are badly worn, and in some places quite or nearly through, to which your attention is invited.

I would also call your attention to setting a row of trees on each side of the walk in the girls' yard, at the South Grammar school, leading from South street to the school house.

The High and Grammar school houses are now all heated by steam, and to prevent any accident from explosion, the utmost attention and caution are required, and the interests of the community demand that none but men

of experience and temperate habits should be employed to take charge of our steam boilers.

There has been three hundred dollars paid out this year for plans and specifications for the proposed alterations of our High school building.

I would recommend that the Primary school houses on Fayette and High streets be painted this season, and also the window frames and wood covings to the Grammar school houses.

HIGH SCHOOL.

So great have been the improvements in School Architecture during the last few years, that our High School House, which, at its erection more than twenty years ago, was esteemed a model building, has now become almost an antiquated structure. Scarcely any repairs have ever been made upon it. The pine benches, which have been in use more than a quarter of a century, and the window sashes, which, during the same period, have been many thousand times raised and shut in ventilating the house, plainly show the effects of this long and constant use, and very greatly need—not to be repaired—but to be replaced by others. The recitation rooms are much too small for the number of pupils, which is often far greater than the house was originally designed to accomodate, and in general, the whole house is far from being such a High School building as the City of Lowell ought to possess. It has long called for the attention of the City Government, and my predecessor has often urged that it should be repaired or re-modeled; but not only has the building been neglected, but the remote prospect of its being re-modeled has been the excuse for doing nothing to improve

it. All the Grammar school houses having several years since been adapted to graded schools, there seems now no good reason why this building should not be so re-modeled, that the High school, also, shall have the advantages of being graded and possessing the facilities and conveniences which the High School buildings in other cities so liberally afford. I do not advocate an expensive structure, but I do believe, that our High School building should, at least, present as many attractions and conveniences as the Grammar school houses already possess. I earnestly urge that the plans for re-modeling the building submitted to the City Government last year be adopted, and immediate steps be taken for carrying the work into execution during the next August vacation of the school.

ENGINE HOUSES.

The amount expended on Engine Houses the past year has been larger than it has been for several years past. The largest amount has been on the engine house on Middle street. The amount expended the past year has been,—

On the Engine House on Middle street, \$3,219.73, which was only partially finished one year ago. The house is large and commodious. It is fitted to accommodate three steamers and six horses, with two large halls and two sleeping-rooms, for the men who take charge of the horses and the engines, and a large hay-loft.

The next largest amount was on Middlesex street, \$2,421.81.

There has been built the past season an addition to the Engine House on Middlesex street, 22 feet by 45 feet, two

stories high, to accommodate four horses, and a large sleeping-room, for the men belonging to the Fire Department.

The hall to No. 1 has been re-plastered and colored, and is now in good condition. I would invite your attention to the painting of the outside of Nos. 1, 10, 14, and at Ayer's City engine houses.

The amounts paid out to those directly in my employ, and charged to the several appropriations, are as follows:

Amount charged to School Houses,.....	\$ 886.86
“ “ Schools,.....	352.34
“ “ Public Buildings,.....	484.53
“ “ Fire Department,.....	1,054.07
“ “ Roads and Bridges,.....	379.49
“ “ Lighting,.....	23.88
“ “ Commons,.....	50.55
“ “ Police Department,.....	2.50
“ “ Making Fires,.....	920.46
“ “ Poor Farm,.....	145.91
“ “ Reserved Fund,.....	7.50
Total,	<u>\$4,308.09</u>

The amount received by me for articles sold at shop, and for division fences, is \$232.87, and has been paid to the Treasurer, and credited to the appropriations to which they belong.

AMOUNT OF STOCK ON HAND AT CITY SHOP,

JANUARY 1, 1867.

500 feet Birch Boards,.....	\$ 18.00
300 feet Joists,.....	7.50
4000 feet Northern Boards—dressed,.....	120.00
<i>Amount carried forward,.....</i>	<u>\$145.50</u>

<i>Amount brought forward,</i>	\$145.50
200 feet old Lumber,.....	2.00
105 Chestnut Posts,.....	21.00
Hardware,.....	40.00
Glass,.....	36.00
Castings,.....	90.00
Desks unfinished,.....	100.00
Tools,.....	17.00
Tinware,.....	6.00
1 Clock,.....	1.00
3 Pails,.....	1.20
4 Window Brushes,.....	2.00
3 Long-handled Brushes,.....	3.00
4 Scrub Brushes,.....	2.00
7 Mop Handles,.....	1.75
69 boxes Crayons,.....	27.59
10 Thermometers,.....	4.50
12 Floor Mats,.....	36.00
12 small Stove Shovels,.....	3.00
10 Brooms,.....	3.64
350 lbs. of Grates,.....	17.50
Total value,.....	<u>\$560.68</u>

REAL ESTATE OWNED BY THE CITY.

Huntington and Jackson Halls,.....	\$35,000.00
City Government Building,.....	25,000.00
Market House,.....	47,000.00
Alms-House and Farm,.....	25,000.00
High School House, on Anne and Kirk Streets,.....	18,800.00
Bartlett School House, on Clark Street,.....	11,500.00
Edson School House, Highland Street,.....	11,500.00
Moody School House, East Merrimack Street,.....	11,000.00
Colburn School House, Lawrence Street,.....	14,700.00
Green School House, Middle Street,.....	12,600.00
Franklin School House, Middlesex Street,.....	11,300.00
Mann School House, Lewis Street,.....	12,500.00
<i>Amount carried forward,</i>	<u>\$235,900.00</u>

Amount brought forward,.....\$235,900.00

Varnum School House Myrtle Street,	15,000.00
Primary School House and Ward Room, corner Merrimack and Race Streets,	3,400.00
Primary School House and Ward Room, Church Street,	4,600.00
Primary School House, Middlesex Street,	5,000.00
Primary School House, School Street,	400.00
Primary School House, High Street,	3,600.00
Primary School House, Tilden Street,	1,500.00
Primary School House, Grand Street,	675.00
Primary School House, Paige Street,	2,300.00
Primary School House, Worthen Street,	2,400.00
Primary School House, Moody Street,	1,300.00
Primary School House, Carter Street,	1,200.00
Primary School House, Charles Street,	1,650.00
Primary School House, Fayette Street,	3,200.00
Primary School House, Powell Street,	475.00
Primary School House, Cabot Street,	2,600.00
Primary School House, Rock Street,	2,100.00
Primary School House, Salem Street,	1,500.00
Primary School House, Adams Street,	3,500.00
Primary School House, Cross Street,	3,600.00
Primary School House, Colburn Street,	800.00
Primary School House, Chapel Street,	2,600.00
Primary School House, Fourth Street,	2,500.00
Primary School House, Central Street,	1,500.00
Primary School House, Chapel Street,	2,250.00
Primary School House, Howard Street,	4,000.00
Engine House and Ward Room, Fayette Street,	2,900.00
Engine House, Middlesex Street,	6,525.03
Engine House, Ayer's City,	500.00
Engine House, Central Street,	1,700.00
Engine House, Carter Street,	900.00
Engine House, Warren Street,	1,800.00
Engine House, Middle Street,	10,256.44
Hook and Ladder House, Middle Street,	3,000.00
Carpenter's Shop, Middle Street,	3,000.00
Gun House and Ward Room, South Street,	1,200.00

Amount carried forward,.....\$341,133.47

<i>Amount brought forward</i> ,.....	\$341,331.47
City Stable, Western Avenue,.....	4,400.00
City Scales, rear of Market House,.....	1,000.00
South Common,.....	23,300.00
North Common,.....	18,300.00
Belvidere Park,.....	2,300.00
Park rear of Government Building,.....	1,100.00
Lot of Land, School Street,.....	16.82
Lot of Land, corner of Willie and Fletcher Streets,.....	612.00
Lot of Land, Chelmsford Street,.....	450.00
Lot of Land, Powell Street,.....	150.00
Lot of Land in Dracut,.....	800.00
Lot of Land in Centralville,.....	190.00
Public Landing, rear of Market House,.....	1,250.00
Central Park, Centralville,.....	250.00
Total Value,.....	<u>\$395,450.29</u>

I have thus laid before you, in as brief a manner as possible, the condition of our Public Buildings, and the nature of such repairs as will be needed the present year.

LORENZO G. HOWE,

Superintendent Public Buildings.

CITY DOCUMENT.



ANNUAL REPORT
OF THE
CHIEF ENGINEER
OF THE
LOWELL FIRE DEPARTMENT,
MARCH,
1867.

REPORT.

ENGINEER'S OFFICE, FIRE DEPARTMENT, }
Lowell, March, 30th, 1867. }

To the Honorable Mayor and Aldermen :

GENTLEMEN: In conformity with Chapter 13th, Section 3rd of the Ordinances of the City, I herewith submit a Report of the condition of the Fire Department, containing a list of its members, with their names, ages, residences, occupations and number of badges; also, the apparatus and property owned by the City, under their charge, and its condition; the number of fires and alarms during the year, and also a list of reservoirs and hydrants, giving their location; together with a tabular statement of losses and insurance, as near as could be ascertained; with such other matters appertaining to the Department as may be of interest to your honorable Board and to our citizens generally.

All of the apparatus belonging to the Department is in excellent condition.

The Department has been called out by fires during the year ending with this date, thirty times; by burning out of chimneys, thirteen times; by false alarms, seven times; by alarms originating out of the city, six times. The amount of loss by fire as nearly as could be ascertained, is \$73,819.00; insurance \$30,034.00. Engine houses Nos. 1, 2, 10 and 14 have been contracted for to be painted on the outside. Ocean Hose house has been whitened and painted this spring. When the work contracted for is done, the houses will all be in good condition.

The expenses of the Department have been very large during the past year. The new Engine House has been built on

Middle Street, at a cost of about \$10,000; also, a Stable on Middlesex Street, adjoining Engine House No. 2; two new Steamers have been purchased, at a cost of \$4,250 each; also, two pairs of horses for Steamers Nos. 1 and 2, at a cost of \$850 per pair. We have also had two thousand five hundred feet of new hose manufactured by Josiah Gates, Esq., at a cost of about \$4,600. The whole expense has been about \$47,000, which is about \$20,000 more than will be required for another year.

In presenting the annual Report, I would recommend that there be a twelve-inch water pipe laid through Central Street from Middlesex Street to Walnut Street, and a six-inch pipe through Walnut Street to Gorham Street, thence through Gorham to connect with the southern end of the pipe now laid, so as to form a connection with both ends of the Gorham Street pipe. As this is but a four-inch pipe it will make it about double the capacity it is now. Also, that a ten-inch pipe be laid from East Merrimack Street through High Street to Oak Street, with hydrants at a suitable distance from each other. These pipes with the twelve-inch pipe through Central Street from Merrimack Street to Middlesex Street, thence through Middlesex Street to the Franklin School House, with hydrants at a suitable distance from each other, which I presume will be laid early this season, in accordance with a resolution passed last year, will give a good supply of water to the most populous part of the city. We could then dispense with the three Hand Engines, by having hose companies formed to take their places. This arrangement would give us a better protection than we have now, with a saving of \$5,700 of an annual expense of the Fire Department.

I would also recommend the horses now used by Engine Company No 3, be exchanged for a new pair.

WEARE CLIFFORD,
Chief Engineer.

CHIEF ENGINEER.

BADGE.	NAME.	AGE.	OFFICE.	RESIDENCE.
Chief.	WEARE CLIFFORD,	51	City Gov't Build'g.	Cor. Fayette and Andover Sts.

ASSISTANTS.

BADGE.	NAME.	AGE.	OCCUPATION.	RESIDENCE.
A	CHAS. H. ARLEN,	39	Gas Fitter,	2 City Hall Avenue.
B	JOHN C. HALL, <i>Ck.</i>	34	Manufacturer,	39 Church Street.
C	SAM'L W. TAYLOR,	37	Carpenter,	172 Merr'k Corp'n.
D	WM. W. BATES,	43	Teamster,	158 School Street.
E	CYRUS E. LUSCOMB,	30	Painter,	29 Market Street.
F	JOSIAH BUTLER,	31	Insurance Solicitor	1 Tyler Street.

FOREMEN OF THE SEVERAL COMPANIES.

BADGE.	NAME.	AGE.	OCCUPATION.	RESIDENCE.
54	Chas. H. Philbrick,	31	Clerk,	18 Race Street.
65	Chas. W. Marriott,	30	Carpenter,	103 Middlesex St.
80	Sam'l Whittemore,	41	Blacksmith,	34 Worthen Street.
39	Charles C. Foote,	40	Machinist,	80 South Street.
1	John G. Crockett,	30	Machinist,	45 Hamilton Corp.
102	Joseph Stevens,	43	Blacksmith,	2 Linden Street.
153	John S. Hall,	37	Manufacturer,	175 Merrimack St.
171	James Platt,	42	Blacksmith,	104 Prince Street.

GENERAL BUTLER STEAM FIRE ENGINE CO. NO. 1.

11 MEMBERS.

HOUSE, MIDDLE STREET.

No. OF BADGE.	NAMES.	AGE.	OCCUPATION.	RESIDENCE.
54	Philbrick, C. H.*	31	Clerk,	18 Race Street.
61	Willey, Chas. H.†	29	Carpenter,	41 Moody Street.
227	Burton, Henry W.‡	25	Carpenter,	Engine House.
55	Austin, Geo. W.§	31	Machinist,	125 Merrim'k Corp.
59	Dugdale, Wm. ||	34	Machinist,	63 Boott Corp.
233	Parsons, Frank D.¶	27	S. F. E. Driver,	Engine House.
228	Hulmes, Jas. H.**	27	Clerk,	16 Church Street.
57	Phelan, Wm. H.**	30	Machinist,	9 Davis Street.
56	Sleeper, A. A.**	24	Carpenter,	120 Merrimack St.
60	Twitchell, A. S.**	34	Machinist,	73 Middle Street.
63	Woodbury, H. D.**	36	Carpenter,	31 Boott Corp.

* Foreman. † Assistant Foreman. ‡ Clerk. § Engineer. || Assistant Engineer.
¶ Driver. ** Hoseman.

Apparatus and Property owned by the City in care of this Company.

This steam engine was built by William Jeffers, of Pawtucket, R. I., and has one steam cylinder 10 inches in diameter, 5 $\frac{3}{4}$ inch water cylinder, and 7 $\frac{1}{2}$ inch stroke, 312 inch tubes of iron in boiler, 32 feet of suction hose, with hydrant couplings. Weight of engine, when loaded, is 5,600 lbs. Hose carriage, built by Samuel Convers, of Lowell, in 1866, carrying 600 feet of hose, drawn by hand. 1,450 feet of 2 $\frac{1}{2}$ inch leading hose in good condition; 6 reducing couplings; 2 axes; 1 pair horses; 1 pair harnesses; 4 blankets; 1 pair lead bars; 1 whiffletree; 3 beds and bedding; 1 bureau; 18 cane-seat chairs; 6 common do.; 1 table; 1 mirror; 1 wood stove. This Company was organized and put into service May 1st, 1866.

TORRENT STEAM FIRE ENGINE CO. NO. 2.

14 MEMBERS.

HOUSE, MIDDLESEX STREET.

No. OF BADGE.	NAMES.	AGE.	OCCUPATION.	RESIDENCE.
65	Marriott, Chas. W.*	30	Carpenter,	103 Middlesex St.
236	Kelley, Andrew †	23	Sash & blind maker	23 Adams Street.
237	Britton, Rual F. †	21	Moulder,	273 Middlesex St.
239	Maddocks, Geo. §	24	Machinist,	Engine House.
69	Hibbart, Chas. S. ||	21	"	" "
241	Stearnes, Aug. C. ¶	26	Cabinet maker,	26 West Court.
74	Bickford, Chas. S.*	20	S. F. E. Driver,	Engine House.
75	Biggs, John ††	22	Carpenter,	12 Howard Street.
68	Dow, Geo. W. ††	30	Blacksmith,	166 Central Street.
70	Kidder, John W. ††	27	Moulder,	McIntire Street.
73	Leavett, John ††	21	"	Worthen Street.
242	Leavett, Edwin ††	34	Teamster,	63 Cushing Street.
66	Maynard, Stearns ††	40	Saw Miller,	33 Smith Street.
78	Wentworth, Edw. ††	20	Machinist,	106 Middlesex St.

* Foreman. † Assistant Foreman. ‡ Clerk. § Engineer. || Assistant Engineer.
¶ Fireman. ** Driver. †† Hoseman.

Apparatus and property owned by the City in care of this Company.

This Company was organized and put in service May 1st, 1861. This Steam Engine was built by Silsby, Mynderse & Co., Seneca Falls, New York, and is of the rotary principle, with 12 inch engine, 6 inch pump. In 1866 a new boiler was built by Hunneman & Co., Roxbury, which is of the most improved pattern. Weight of Engine when loaded, 8,300 lbs. 30 feet suction hose, with hydrant couplings; hose carriage, drawn by horse, carrying 800 feet of hose, built in 1861 by J. Jenkins, Lowell; 2,100 feet 2½ inch leading hose, in good condition; 2 axes; 10 reducing couplings; 1 patent spreading nozzle; 14 chairs; 1 table; 2 stoves; 1 bureau; 3 beds and bedding; 2 mirrors; 1 pair horses; 1 pair harnesses; 1 single harness; 4 blankets; 1 pair lead bars; and all necessary tools for cleaning of horses and repairs of Engine.

WAMESIT STEAM FIRE ENGINE CO. NO. 3.

15 MEMBERS.

HOUSE, MIDDLE STREET.

No. OF BADGE.	NAMES.	AGE.	OCCUPATION.	RESIDENCE.
80	Whittemore, Saml.*	41	Blacksmith,	34 Worthen Street.
91	Salmon, Geo. F.†	28	Machinist,	69 Church Street.
86	Bailey, Fred G.‡	21	Provision Dealer,	58 Andover Street.
81	Stratton, Torry E.§	30	Machinist,	122 Central Street.
82	Locke, James J.||	35	"	111 " "
85	Abbott, John W.¶	21	"	Engine House.
87	Bishop, Nath'l¶	29	Manufacturer,	75 Boott Corp.
90	Brown, Edw'd L.¶	30	Machinist,	80 Prince Street.
88	Cooper, Chas. F.**	27	S. F. E. Driver,	Engine House.
89	McAnulty, Jno. J.¶	20	Machinist,	5 Hurd Street.
83	Moar, John E.¶	29	Manufacturer,	25 Merrimack Corp.
92	Stone, Winslow¶	27	Machinist,	52 Church Street.
94	Stinson, Chas. M.¶	45	Moulder,	73 Summer Street.
93	Spencer, Robert¶	25	"	Engine House.
229	Taylor, James F.¶	32	Carpenter,	" "

* Foreman. † Assistant Foreman. ‡ Clerk. § Engineer. || Assistant Engineer.
¶ Hoseman. ** Driver.

Apparatus and property owned by the City, in care of this Company.

This Company was organized and put in service in October, 1859, then having in charge the Steam Engine built by Silsby, Mynderse & Co., Seneca Falls, New York, now used as a relief Engine. Occupying the House on Warren Street, on the 1st of April, 1866, they were removed to the new House on Middle Street. On the 9th of November, 1866, they were given in charge of a new Steamer, built by Hunneman & Co., of Roxbury. This Engine has two double acting steam cylinders, 8 inches diameter and 8 inch stroke, and two double acting flange pumps, 4 $\frac{3}{8}$ inches diameter and 8 inch stroke. The pumps are so arranged that they can be worked separately in case of an accident to either of them. There are 276 iron flues in the boiler and will make steam enough to run the engine in five minutes. Weight when loaded, 7,650 lbs. 30 feet suction hose, with hydrant couplings; hose carriage, built by J. Jenkins, Lowell, in 1866, drawn by hand, carrying 1000 feet of hose; six reducing couplings; 2 axes; 1 patent spreading nozzle; 2,450 feet 2 $\frac{1}{2}$ inch leading hose, in good condition; 6 wooden chairs; 18 cane seat chairs; 2 mir-

rors; 2 desks; 1 bureau; 3 beds and bedding; 1 wood stove; 2 jack screws; 1 pair horses; 1 pair harnesses; 2 blankets; 1 pair lead bars; 2 whiffletrees; and all necessary articles for cleaning and care of horses and repairs of Engine.

The following articles are owned by the City and are used by both Companies: 1 large stove; 1 clock; 50 feet of $1\frac{1}{4}$ inch rubber hose and pipe.

OCEAN HOSE COMPANY, NO. 1.

15 MEMBERS.

HOUSE, WARREN STREET.

NO. OF BADGE.	NAMES.	AGE.	OCCUPATION.	RESIDENCE.
39	Foote, Charles C.*	40	Machinist,	80 South Street.
40	Quant, George†	33	Carpenter,	88 Prince "
42	Cooper, Sam'l G.‡	22	Copr. stamp maker,	45 Charles "
49	Bear, John	25	Tin Smith,	113 Merrimack St.
232	Bryant, Otis	24	Machinist,	43 Appleton Street.
43	Coburn, Edward C.	31	Carpenter,	1 Garnet Street.
52	Cleworth, Walter	23	Printer,	71 Church Street.
231	Clark, W. H.	23	Carver,	Charles Street.
45	Estabrook, W. H.	22	Artist,	148 Suffolk Street.
47	Holden, Charles A.	22	Butcher,	32 Walnut "
48	Kavanaugh, Aug J.	24	Machinist,	12 Cabot "
230	Little, Edwin	22	"	82 Prince "
46	Littlefield, Wm. N.	22	Grocer,	Central Street.
51	Sanborn, J. N.	25	Carpenter,	120 Merrimack St.
53	Vinal, C. A.	24	"	3 Willow Court.

* Foreman. † Assistant Foreman. ‡ Clerk.

Apparatus and property owned by the City in care of this Company.

Hose Carriage, built in 1853 by Hunneman & Co., Roxbury, drawn by hand, carrying 750 feet of hose; 700 feet of $2\frac{1}{2}$ inch hose, in good condition; 1100 feet of $2\frac{1}{4}$ inch hose, of which 500 feet are not reliable; 1 patent spreading nozzle; two axes; 2 stoves; 1 copper boiler; 1 harness; 1 table; 4 chairs; 7 settees; 2 mirrors; 1 jack; 4 reducing couplings.

FRANKLIN HOOK AND LADDER CO., NO. 1.

38 MEMBERS.

HOUSE, MIDDLE STREET.

NO. OF BADGE.	NAMES.	AGE.	OCCUPATION.	RESIDENCE.
1	Crockett, John G.*	30	Machinist,	45 Hamilton Corp.
2	Hall, Hiram N.†	38	Moulder,	Elliot Street.
34	Welch, Chas. A.‡	42	Manufacturer,	69 Merrimack Corp.
3	Adams, Wm. H.	42	Machinist,	21 Mass. Corp.
4	Abbott, G. W.	36	Carpenter,	139 Merri'k Corp.
35	Barnard, Wm.	39	Tinman,	131 " "
8	Bell, Samuel M.	28	Manufacturer,	77 High Street.
5	Brown, Jacob P.	41	Carpenter,	71 Third "
6	Clark, Ezra	40	Manufacturer,	36 Merri'k Corp.
7	Clark, O. M.	23	Moulder,	37 Worthen Street,
9	Downs, Horatio B.	31	Carpenter,	47 Hamilton Corp.
10	Doe, William K.	46	"	166 Merri'k "
11	Diekey, R. M.	37	"	12 S. Highland St.
13	Grover, Josiah	40	Trader,	47 Merrimack St.
37	Healey, J. C.	37	Carpenter,	173 Merrim'k Corp.
15	Hilton, William C.	29	"	2 Moody Street.
14	Hubbard, C. F.	40	"	37 Legrange Street.
17	Ingalls, W. W.	43	"	18 Lawrence Corp.
16	Ireson, Benj. S.	42	Manufacturer,	170 Merrim'k Corp.
18	Jockow, Julius C.	30	Blacksmith,	60 Church Street.
19	Luther, Thomas	47	Machinist,	47 Hamilton Corp.
12	Merrill, George S.	20	Moulder,	11 Mass. Corp.
21	Norman, Rufus	40	Carpenter,	48 Merrimack Corp.
25	Palmer, Albert	48	Machinist,	36 Essex Street.
24	Peasley, E. B.	33	"	66 Moody "
22	Pearsons, Jacob P.	28	Weaver,	124 Central Street.
36	Pickman, David	43	Machinist,	4 Water Street.
23	Pullen, John A.	38	Machinist,	40 Merrimack Corp.
27	Richardson, O. W.	35	Carpet Weaver,	2 Mt. Pleasant St.
28	Roberts, William	40	Manufacturer,	175 Merrim'k Corp.
31	Simmons, W. H.	38	Moulder,	119 Central Street.
30	Sheppard, G. F.	31	Machinist,	Massachusetts Corp.
32	Smith, J. V.	40	Moulder,	99 Appleton Street.
29	Stevens, C. B.	34	Carpenter,	227 School Street.
20	Tilton, F. B.	35	Machinist,	115 Gorham "
33	Tyler, A. M.	44	Carpenter,	14 Church "
38	Walton, L. W.	29	Weaver,	61 Mass. Corp.
36	Webber, Samuel F.	23	Blacksmith,	50 Hamilton Corp.

* Foreman. † Assistant Foreman. ‡ Clerk.

Apparatus and property owned by the City, in care of this Company.

Hook and Ladder Carriage, built in 1856, by Samuel Convers, Lowell, carrying the following apparatus: 8 hooks; 12 props; 10 rakes; 8 pitchforks; 4 sledges; 4 axes; 6 stakes; 4 guy ropes, of 84 feet each; 200 feet of street rope; 16 ladders of the following lengths:—2 roof ladders, 18 feet each; 1 do. do. of 20 feet; 2 do. do. of 25 feet; 1 do. do. of 28 feet; 1 ladder of 12 feet; 1 do. of 24 feet; 4 do. of 33 feet; 2 butt ladders of 28 feet each; two tip ladders of 30 feet each. By joining the butts and tips together they are enabled to raise ladders of 58 feet in length.

EXCELSIOR ENGINE COMPANY, NO. 1.

38 MEMBERS.

HOUSE, CENTRAL STREET.

No. CF BADGE.	NAMES.	AGE.	OCCUPATION.	RESIDENCE.
102	Stevens, Joseph *	43	Blacksmith,	2 Linden Street.
100	Hobson, George †	41	Clerk,	10 " "
222	Noyes, Henry H. ‡	25	Carpenter,	230 Central Street.
220	Adams, Ira	21	"	18 Franklin Court.
112	Bixby, Joseph C.	29	Manufacturer,	29 Market Street.
217	Burns, James G.	25	Moulder.	50 Mass. Corp.
209	Capin, John F.	24	Manufacturer,	115 Gorham Street.
119	Clough, Horatio E.	30	Brass Finisher.	9 Central Street.
108	Clark, William W.	22	Belt Maker,	" "
128	Coburn, Jonas S.	20	Mechanic.	217 Middlesex St.
107	Davis, Hosea Q.	36	Gas Fitter.	95 Market Street.
114	Daggett, Henry C.	45	Carpenter,	32 Bridge "
226	Dix, John F.	22	Blacksmith,	13 Hamilton Corp.
115	Durrell, Stillm'n R.	32	Teamster,	3 " "
111	Elwell, Alonzo P.	21	Carpenter,	20 South Street.
221	Evans, John W.	23	Manufacturer,	4 Adams "
122	Fletcher, James B.	21	Carpenter,	263 Central Street.
104	Gleason, George R.	28	Card Maker.	90 Appleton "
95	Gove, Merrill C.	43	Machinist,	7 Merrill Court.
223	Griffin, Charles A.	30	Shuttle Maker,	2 Auburn Street.
99	Griffin, Arrick M.	31	Carpenter,	Cushing Street.
109	Grady, John W.	23	Mechanic,	217 Middlesex St.
118	Hall, Albert P.	28	Clerk,	41 Church Street.
211	Hall, William A.	24	Manufacturer,	
225	Hilton, Daniel W.	22	"	50 Mass. Corp.
117	Hoyt, Charles B. F.	34	Gas Fitter	176 Suffolk Street.
210	Needham, Wm. O.	22	Manufacturer,	50 Mas. Corp.
103	Noyes, John F.	33	Carpenter,	230 Central Street.
121	Parker, Charles L.	26	Manufacturer,	18 Appleton Corp.
98	Sargent, John S.	28	Mat Maker,	Thorndike Street.
224	Shores, Joshua W.	35	Carpenter,	6 Linden Street.
120	Smith, Charles H.	32	Hotel,	Central Street.
219	Stott, George	25	Manufacturer.	15 Charles Street.
218	Teel, George	21	Moulder,	3 Jackson "
216	Tilton, Herman N.	22	"	308 Central Street.
215	Tilton, George W.	28	Miller,	" " "
243	White, Charles L.	23	Manufacturer,	115 Gorham "
101	Young, John	21	"	" " "

* Foreman. † Assistant Foreman. ‡ Clerk.

Apparatus and property owned by the City, in care of this Company.

Engine and Hose Carriage, built in 1850, by Hunneman & Co., Roxbury. Diameter of cylinder, $5\frac{1}{2}$ inches; stroke of piston, 16 inches. 25 feet of suction hose; 1050 feet of leading hose—700 feet not reliable; 2 stoves; 9 settees; 1 table; 1 mirror; 1 ladder; 2 reducing couplings; 9 chairs.

TIGER ENGINE COMPANY, NO. 5.

38 MEMBERS.

HOUSE, COLBURN STREET.

No. OF BADGE.	NAMES.	AGE.	OCCUPATION.	RESIDENCE.
153	Hall, John S.*	37	Manufacturer,	175 Merrimack St.
165	Clark, Martin C.†	33	Machinist,	156 Merrim'k Corp.
147	Dudley, Ward S.‡	38	Carpenter,	7 Franklin Court.
134	Austin, Norman I.	30	Machinist,	140 Merrim'k Corp.
135	Blodgett, Chas. A.	26	"	114 " "
138	Blodgett, G. L.	21	Manufacturer,	175 " "
167	Blaisdell, C. E.	22	"	134 " "
136	Briggs, Frank W.	33	"	158 " "
137	Briggs, Ansel S.	25	"	73 " "
139	Chapin, Samuel	32	"	62 " "
145	Chapman, F. P.	21	"	51 Mass. Corp.
144	Clogstone, D. F.	39	"	21 Essex Street.
146	Clough, H. H.	24	"	115 Merrim'k Corp.
140	Commings, A. J.	29	"	175 " "
141	Coburn, William A.	26	"	127 " "
158	Conick, F. H.	24	Baker,	261 Merrimack St.
142	Courier, Edwin C.	25	Manufacturer,	60 Mass. Corp.
148	Dix, Daniel	39	"	45 Merrimack Corp.
149	Flanders, W. W.	34	"	14 Lawrence Corp.
133	Frapoint, Frank	26	"	71 Middle Street.
150	Gordon, Silas D.	40	"	159 Merrim'k Corp.
151	Gorman, Aaron	42	Teamster,	18 Mass. Corp.
152	Hanson, C. H.	22	"	3 West Court.
154	Johnson, Joseph B.	36	Manufacturer,	39 Merrimack Corp.
156	Kelsey, J. A.	28	Painter,	123 " "
155	Kelley, S. P.	29	Belt Maker,	Coburn Street.
157	Miner, Charles	36	Manufacturer,	122 Merrim'k Corp.
159	Mason, Andrew A.	24	Machinist,	18 Mass. Corp.
160	Pead, Samuel	38	Carpenter,	99 Merrimack Corp.
161	Reed, Charles A.	36	Manufacturer,	38 " "
162	Rendiville, Felix	29	Belt Maker,	18 Lowell Corp.
163	Smith, William	27	Painter,	15 Marshall Street.
166	Snelgrave, Henry	26	Manufacturer,	41 Merrimack Corp.
143	Spaulding, John	27	Carpenter,	122 Moody Street.
164	Symonds, Edward	29	Manufacturer,	2 Tilden Street.
170	Walton, Andrew C.	29	"	84 Mass. Corp.
168	Watts, T. H.	40	"	49 Merrimack Corp.
169	Weldon, Henry	25	Bobbin Maker,	32 Water Street.

* Foreman. † Assistant Foreman. ‡ Clerk.

Apparatus and property owned by the City, in care of this Company.

Engine and Hose Carriage, built in 1854, by Hunneman & Co., Roxbury. Diameter of cylinders, $5\frac{1}{2}$ inches; stroke of piston, 16 inches. 26 feet of suction hose; 800 feet of leading hose—300 feet not reliable; 1 mirror; 2 trumpets; 3 stoves; 1 coal hod; 1 shovel; 11 settees; 1 table; 4 chairs; 2 reducing couplings; 2 axes.

MAZEPPA ENGINE COMPANY, NO. 10.

38 MEMBERS.

HOUSE, FAYETTE STREET.

No. OF BADGE.	NAMES.	AGE.	OCCUPATION.	RESIDENCE.
171	Platt, James,*	42	Blacksmith,	104 Prince Street.
191	McMaster, John †	24	Carpenter,	7 Lawrence “
200	Poor, Chas. E. ‡	36	“	Hunt's Court.
174	Bailey, George E.	39	Carder,	45 Mass. Corp.
175	Bowman, James A.	29	Painter,	87 Prince Street.
176	Collins, Edward B.	38	Moulder,	73 Mechanics St.
177	Cummiskey, P.	37	Butcher,	89 Market Street.
193	Craig, Chas. P.	27	Machinist,	53 Boott Corp.
178	Dempsey, Timothy	21	Laborer,	22 Dummer Street.
180	Fhoye, Andrew	22	Manufacturer,	Stott Bl'k, Howe St.
179	Fleck, Patrick	31	Carpenter,	79 Market Street.
181	Foly, Jeremiah A.	25	Laborer,	Market Street.
172	Glidden, C. L.	21	Machinist,	39 Appleton Street.
182	Goodwin, Clarend'n	29	Carpenter,	7 Lawrence “
183	Green, Albert T.	30	Carder,	36 Mass. Corp.
186	Hall, Eben K.	29	Weaver,	28 Boott “
188	Halpin, Nicholas	34	Tanner,	9 Water Street.
187	Howe, Robert	32	Laborer,	Market “
184	Hussey, George R.	39	Moulder,	21 Essex “
234	Hutchinson, Henry	31	Carpenter,	72 Church Street.
190	Lawrence, Geo. W.	27	Dentist,	3 Harrison “
198	Meredith, Edward	24	Painter,	9 Fayette “
196	McCrackin, Wm. S.	22	Carpenter,	Charles Street.
203	McCrackin, Isaac	24	Machinist,	Church “
199	McNeese, Michael	22	Laborer,	13 Fayette Street.
194	Morse, Charles	25	Manufacturer,	6 Water Street.
195	Morse, Alexander	23	Block Printer,	“ “ “
192	Munn, Frederick	34	Spinner,	16 Mass. Corp.
173	Murrey, Richard	22	Brewer,	25 High Street.
189	Polson, James	32	Moulder,	73 Mechanics St.
197	Quinlan, James,	20	“	39 Gorham Street.
201	Scott, Hugh	22	Wool Sorter,	Lawrence St. Court.
202	Scott, Marshall	32	Painter,	“ “ “
235	Stackpole, Henry J.	24	Weaver,	27 Prescott Corp.
205	Stackpole, Frank	21	“	“ “ “
208	Webster, Enoch		Card Grinder,	
206	Whitesides, Edw'd	22	Laborer,	8 Water Street.
207	Woods, Thomas	41	Carpenter,	Central Street.

* Foreman. † Assistant Foreman. ‡ Clerk.

Apparatus and property owned by the City, in care of this Company.

Engine and Hose Carriage, built in 1854, by Hunneman & Co., Roxbury. Diameter of cylinders, $5\frac{1}{2}$ inches; stroke of piston, 16 inches. 24 feet of suction hose; 800 feet of leading hose, in good condition; 2 axes; 2 reducing couplings; 3 stoves; 1 coal hod; 1 shovel; 1 table; 7 settees; 8 chairs; 1 mirror; 1 ladder.

FIRE APPARATUS AT STATIONARY POINTS,

To be used by Volunteers when required.

ROCKET ENGINE, No. 2.

HOUSE, AYER'S CITY.

Hunneman & Co. Engine, owned by city. Diameter of cylinders, $5\frac{1}{2}$ inches; 16 inch stroke of piston; 450 feet of leading hose; 26 feet suction hose.

ENGINE No. 12.

HOUSE, FOURTH STREET, CENTRALVILLE.

Hunneman & Co. Engine, owned by city. Diameter of cylinders, $5\frac{1}{2}$ inches; 16 inch stroke of piston; 450 feet leading hose; 24 feet suction hose; 1 ladder.

DELUGE ENGINE, No. 14.

HOUSE, CARTER STREET.

Hunneman & Co. Engine, owned by Bleachery Company. Diameter of cylinders, $5\frac{1}{2}$ inches; 16 inch stroke of piston; 800 feet leading hose; 26 feet suction hose.

FIRE KING ENGINE, No. 6.

KEPT AT THE POOR FARM.

Hunneman & Co. Engine, owned by city. Diameter of cylinders, $3\frac{1}{2}$ inches; 12 inch stroke.

STEAMER FORMERLY USED BY WAMESIT COMPANY, No. 3.

HOUSED ON WARREN STREET.

Silsby, Mynderse & Co., builders, Seneca Falls, N. Y. Built in 1859, and is on the rotary principle; 12 inch engine; 6 inch pump; 31 feet suction hose.

6 ladders in Hook and Ladder House; 350 feet of chain in Hook and Ladder House.

RECAPITULATION.

- 7 Engineers.
- 207 Firemen.
- 7 Hand Engines.
- 4 Steam Fire Engines.
- 6,700 feet $2\frac{1}{2}$ inch Leading Hose.
- *5,700 feet $2\frac{1}{4}$ inch Leading Hose.
- 274 feet Suction Hose.
- 11 Hose Carriages.
- 1 Hook and Ladder Carriage.
- 1 Fuel Wagon.
- 6 Horses.
- 3 pairs Harnesses, 2 single Harnesses, 8 Hooks, 25 Ladders, 12 Props, 10 Rakes, 8 Pitchforks, 4 Sledges, 22 Axes, 200 feet Street Rope, 350 feet Chain, 32 Reducing Couplings, 3 Patent Spreading Nozzles, 9 Beds and Bedding, 87 Chairs, 34 Settees, 10 Mirrors, 15 Stoves, 7 Tables, 3 Bureaus, 2 Trumpets.

The apparatus is all owned by the City, with the exception of Engine No. 14, which is owned by the Bleachery Company. The several Companies are furnished with Spanners, Lanterns, Signal Lanterns, Belts, Axes, Crowbars, Shovels, and all necessary apparatus for the performance of their respective duties. There are 13 Fire Buckets at the Market House, 12 at the Police Court Rooms, and 8 at the City Government Building.

* 1,500 feet not reliable.

The City of Lowell has thirteen Reservoirs where water can be procured in case of fire, situated as follows :

- 1 on Tyler Street, at the Corner of George Street.
- 1 on Chestnut Street, at the corner of Willow Street.
- 1 on East Merrimack Street, at the corner of High Street.
- 1 on Salem Street, near the intersection of Willey Street.
- 1 on Cross Street, between Fletcher and Willey Streets.
- 1 on Central Street—Hosford Square.
- 1 on Myrtle Street, at the head of Fifth Street, Centralville.
- 1 on Union Street, at the corner of Chapel Street.
- 1 on the corner of Westford and Grand Streets.
- 1 on Fourth Street, near Reed Street.
- 1 on Chapel Street, at the corner of Keene Street.
- 1 on Varney Street, near Mt. Vernon Street.
- 1 on the corner of Queen and Branch Streets.

LENGTH OF WATER PIPE LAID IN THE CITY.

ALSO, SIZE OF PIPE AND NUMBER OF HYDRANTS.

	Length of Pipe.	No. of Hydrants.	Size of Pipe.
Middlesex Street,	3,680	13	6 in.
Central Street, from Merrimack to Market, .	430	2	6 "
Central Street, from Middlesex to Church, .	240	1	4 "
Central Street, from Warren to Middlesex, .	565	4	6 "
Gorham Street,	1,950	7	4 "
Bridge Street,	475	4	8 "
French Street,	890	4	4 "
Kirk Street,	770	4	4 "
Merrimack Street, from Bridge to Cabot, .	3,370	13	12 "
Merrimack Street, from Cabot Westerly, .	440	2	8 "
Cabot Street,	745	4	12 "
Adams Street,	2,255	11	8 "
Cushing Street,	920	5	8 "
Merr'k to Middle Sts., City Hall Avenue, .	220	2	4 "
Total,	16,950 ft.	76	

WATER GATES.

The Water Pipes are laid in two sections, and the Water Gate to be opened to pass water through the Southern Section, which comprises all laid in Wards 3 and 4, is on Central Street, opposite Warren Street. The Northern Section, which comprises all laid in Wards 1, 2 and 5, has three: one at the corner of Merrimack and Bridge Streets, one at the corner of Merrimack and Worthen Streets, and one on Cabot Street, near Merrimack. The water stands in the pipes laid in Bridge, French and Kirk Streets all the time, and also in all the pipes laid by the Locks and Canals Company and the several Corporations.

FIRES AND ALARMS FROM APRIL 1, 1866 TO MARCH 31, 1867.

DATE.	HOOR.	OWNER OR OCCUPANT.	LOCATION.	LOSS.	INSURANCE.	REMARKS.
1866- April 6.	12.30, A. M.	Machine Shop Company,	Machine Shop Yard.			Fire Department not admitted to yard.
" 11.	7.00, P. M.		Cabot Street,			Burning out of chimney. Partial al'm.
" 17.	12.30, P. M.		North Street,			" " "
" 23.	3.00, "	Dr. Winn's Office,	Kirk Street,	Trifling.		Cause unknown.
" 24.	7.30, "		Middlesex Street,			Burning out of chimney. Partial al'm.
" 27.	9.00, "					Partial alarm. False.
" 28.	8.30, "	John Holt's Mills,	Davidson Street,	Trifling.		Piling wood on top of boiler.
" 28.	9.45, "					Partial alarm. False.
" 30.	1.00, "	W. H. Parker,	Lee Street,	..\$130	..\$130	Cause unknown.
" 30.	6.30, "		Adams Street,			Burning out of chimney. Partial al'm.
May 1,	12.30, "					Partial alarm. False.
" 2,	8.30, "					" " "
" 5,	9.30, "		Tremont Street,	Trifling.		" " "
" 10,	8.00, "		Out of the city,			" " "
" 11,	11.00, "	Otis Allen,	Middlesex Street,	\$20,000	\$5,000	The fire originated in rear of saw mills, and before the alarm was given had communicated to the saw mills and several other buildings in the vicinity. Logs in the canal floating down set fire to several bridges and also to the car house of B. & L. R. R., but did not do much damage. The lumber on the opposite side of the canal caught fire but was extinguished with trifling damage. The cause of the fire is not known.
May 14,	5.00, P. M.					Caused by defective chimney.
" 15,		Pattern Shop,	Appleton Street,	Trifling.		Engines Nos. 2 and 5 were sent up.
" 27,	2.00, A. M.	Merrimack Manufacturing Co.,	North Chelmsford,	..\$200		Cause unknown.
" 27,	2.30, "	C. B. Richmond,	Coburn Street,	250		Barn used for storage of carriages. Supposed to have been set on fire.
" 27,		L. B. Richardson & Son,	Lawrence Street,	875	..\$750	
" 28,		J. B. Eaton,		300		
" 28,		J. H. Brock,		25		
" 28,	7.00, P. M.		William Street,			Burning out of chimney. Partial al'm.
June 3,	2.00, A. M.	Benjamin Thurston,	School Street,	..\$150		Cause, incendiary.
" 3,	8.00, P. M.		Lowell Street,			Burning out of chimney. Partial al'm.
" 7,	11.00, "	City of Lowell,	Market House,	Trifling.		The fire originated between some car-boys of acids. Cause, unknown.
" 9,		G. P. Talbot & Co.,		Trifling.		Burning out of chimney. Partial al'm.
" 9,	9.00, "		East Merrimack St.			" " "
" 10,	9.00, A. M.		Green Street,			Partial alarm. Burning brush.
" 11,	3.00, P. M.		Dracut,			Small barn. Cause, unknown.
" 15,	12.30, A. M.		Market and Middle,	Trifling.		Cause, carelessness with ashes.
" 16,	3.30, "	Emory Wright,	Middle Street,	Trifling.		Partial alarm. False.
" 23,	10.30, P. M.					Barn of widow Richardson.
" 24,	2.30, A. M.		Dracut,			Ex. without aid of dept. Partial al'm.
" 24,	3.30, "	Middlesex Manufacturing Co.,	Middlesex Yard,	Trifling.		Sparks from engine.
July 3,	5.30, P. M.	A. L. Brooks,	Dutton Street,	Trifling.		Kerosene lamp caught fire. Part'al'm.
" 24,	9.30, "		Keene Street,			McDonald house and barn burned.
" 26,	2.30, "		Dracut,			Partial alarm. False.
" 26,	9.30, "					Paint skins caught fire while boiling.
" 27,	12.00, noon.	A. Kittredge,	Middle Street,	..\$50	..\$50	Partial alarm. False.
" 27,	7.30, P. M.					False alarm.
Aug 12,	12.30, A. M.		Worthen Street,	Trifling.		Partial alarm.
" 19,	1.00, "		Centralville,			" " " Burning straw.
" 26,	9.30, P. M.					Slight fire in shed.
Sept 4,	10.00, A. M.	William Bascom,	Merrimack Street,	Trifling.		Cause, defective chimney.
Oct 6,	2.30, P. M.		Gorham Street,	Trifling.		Slight fire on roof. Sparks from chimney Cause, accidental.
" 23,	8.00, "	John Holt,	Rear of Howe St.	\$2,500		
" 23,		S. F. Wiley,		200		
" 23,		Peabody, Goodhue & Co.,		2,100	\$1,000	
" 31,	8.30, "	Amos Colby,		100		
" 31,		Daniel Holt,		375	..\$375	
" 31,		W. P. Webster,	Tenth Street,	..\$500	..\$500	Partial alarm. Slight fire.
" 31,		F. S. Perkins,	Church Street,	60		Small barn. Cause, unknown.
" 31,		S. S. Russell,		25		
Nov 4,	3.30, P. M.	Frank Calvert,	Jackson Street,	..\$1,000		Caused by imperfect covering of boiler.
" 8,	2.30, A. M.	Daniel Saunders, of Lawrence,	Middlesex Street,	\$20,000	\$17,250	Saw mills. Cause, unknown.
" 29,	2.30, "		Middlesex Village,			2 houses and barn. Steamers all worked
Dec 23,	9.30, "	George E. Mitchell,	Linden Street,	Trifling.		Barn slightly injured.
" 29,	8.00, P. M.		Middle Street,			Partial al'm. Burning out of chimney.
1867- Jan 1,	8.30, "		Winter Street,			Partial al'm. Burning out of chimney.
" 2,	7.00, "		Jefferson Street,			Alarm. Burning out of chimney.
" 12,	8.00, "		Water Street,			Partial al'm. Burning out of chimney.
" 25,	10.00, "	Weld Spaulding,	Central Street,	..\$100		Kimball's saloon. Caught from stove.
Feb 10,	7.00, "		Union Street,	..\$100		Partial al'm. Burning out of chimney.
Mar 9,	7.00, "	C. H. Crowther,	Lawrence Street,	..\$500	..\$200	Caught from singe apparatus.
Total,				\$73,819	\$30,034	

R U L E S

OF THE

SCHOOL COMMITTEE

AND

REGULATIONS OF THE PUBLIC SCHOOLS

OF THE

CITY OF LOWELL,

ADOPTED JUNE, 1867.



LOWELL:

STONE & HUSE, PRINTERS, DAILY COURIER OFFICE, 21 CENTRAL STREET.

1867.

SCHOOL COMMITTEE, 1867.

GEORGE F. RICHARDSON, Chairman.
SAMUEL W. STICKNEY, Vice Chairman.
CHARLES MORRILL, Secretary.

MEMBERS OF SCHOOL COMMITTEE.

GEORGE F. RICHARDSON, Mayor, } *Ex-Officiis.*
GUSTAVUS A. GERRY, President of Common Council, . . }

Ward 1—	J. W. B. SHAW,	Term expires	1867.
	JAMES B. FRANCIS,	“	“ 1868.
“ 2—	DANIEL P. GAGE,	“	“ 1867.
	S. W. STICKNEY,	“	“ 1868.
“ 3—	JOSHUA MERRILL,	“	“ 1867.
	JOHN F. FRYE,	“	“ 1868.
“ 4—	JOHN DAVIS,	“	“ 1867.
	JOHN H. BUTTRICK,	“	“ 1868.
“ 5—	GEORGE H. WHITMORE,	“	“ 1867.
	RUFUS ROGERS,	“	“ 1868.
“ 6—	LUTHER E. SHEPARD,	“	“ 1867.
	JOHN A. GOODWIN,	“	“ 1868.

STANDING COMMITTEES.

ON ACCOUNTS—Messrs. Richardson, Gerry, Stickney, Francis and Shaw.
ON SCHOOL HOUSES—Messrs. Francis, Gerry, Merrill, Davis and Gage.
ON TEACHERS—Messrs. Frye, Goodwin, Shepard, Davis and Gage.
ON REPORTS—Messrs. Goodwin, Shepard, Buttrick, Rogers and Whitmore.
ON BOOKS—Messrs. Richardson, Stickney, Frye, Davis, Shaw and Goodwin.
ON MUSIC—Messrs. Stickney, Gerry, Merrill, Davis and Rogers.
ON SALARIES—Messrs. Merrill, Stickney, Shaw, Whitmore and Francis.

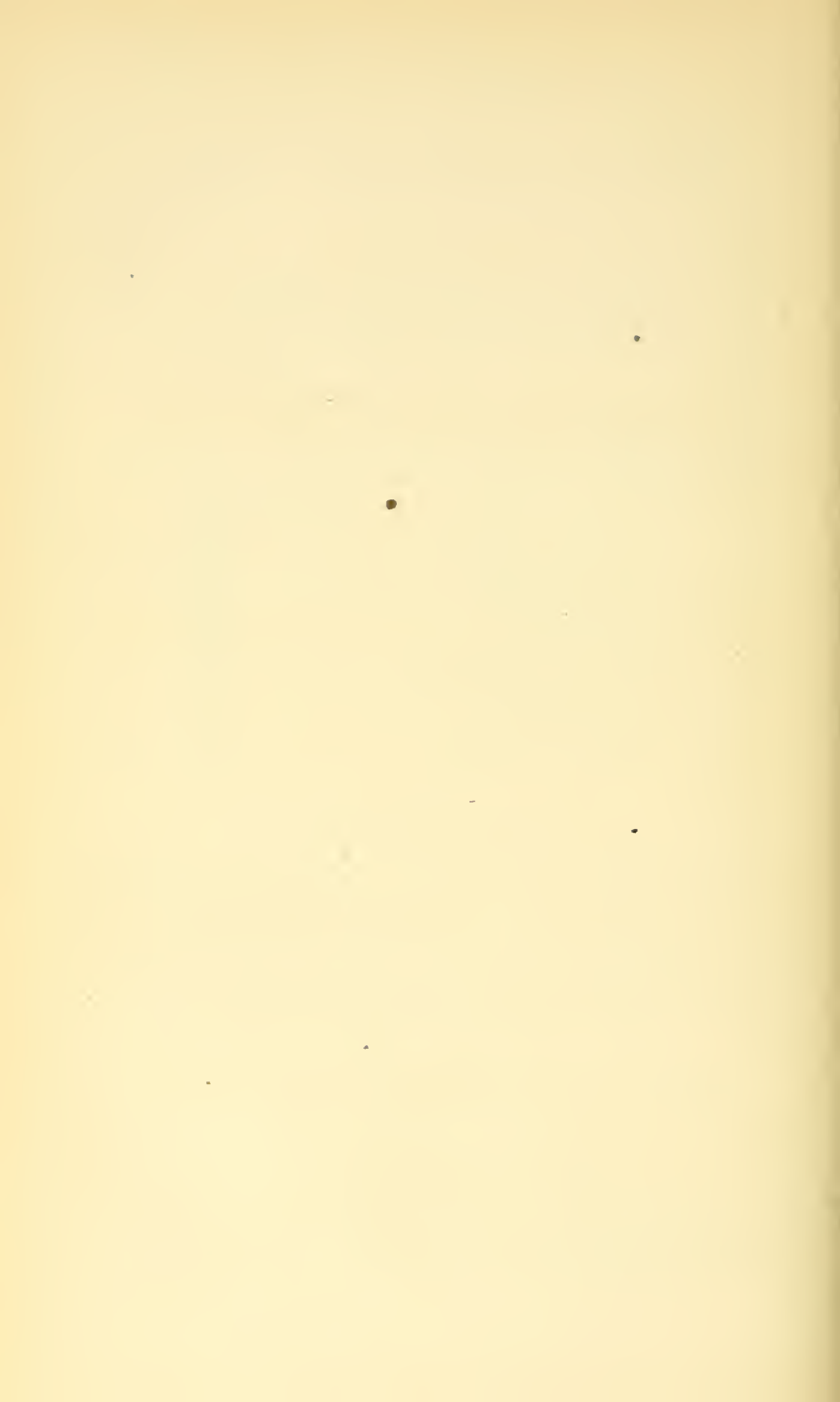
CHARLES MORRILL, Superintendent of Public Schools.

Office in City-Government Building.

OFFICE HOURS—One hour after the morning session of schools, and from 2 to 3 o'clock
Wednesday and Saturday afternoons.

* The Mayor and President of the Common Council, ex-officiis, together with twelve persons elected for the term of two years, (one being elected annually from each Ward,) constitute the School Committee.

Vacancies in the Board are filled by a joint vote of the School Committee and the Board of Aldermen in convention.



RULES

OF THE

BOARD OF SCHOOL COMMITTEE.

CHAPTER I.

SECTION 1. The School Committee shall meet for organization on the first Monday of January, at 2 o'clock, P. M. The Mayor shall be Chairman. A Vice Chairman and a Secretary shall be chosen by ballot. The following Standing Committees shall be appointed:—1, On Accounts; 2, On School Houses; 3, On Teachers; 4, On Reports; 5, On Books; 6, On Salaries; 7, On Music. The Committees shall consist of five members, except the Committee on Books, which shall consist of six.

Organization of Committee.

A Sub-Committee shall be appointed for each school.

SECT. 2. The regular meetings shall be holden on the last Monday in each month, at half-past seven o'clock, P. M.

Meetings.

The Chairman, and in his absence the Vice Chairman, may call special meetings at any time, and shall call such meetings whenever requested in writing by two members.

A majority of the Board shall constitute a quorum for the transaction of business.

Quorum.

Unless a quorum is present at fifteen minutes after the hour of meeting, the Board shall be declared to be adjourned.

THE FOLLOWING SHALL BE THE ORDER OF BUSINESS.

1. Reading the record of previous meeting.
2. Unfinished business.
3. Reports of Committees.
4. Reports and suggestions from the Superintendent.
5. Appointment of temporary teachers.
6. New business.

DUTIES OF THE CHAIRMAN.

SECT. 3. The Chairman shall call the Board to order at the hour appointed. He shall preserve order; put to vote all motions made, unless the same shall be withdrawn by the mover before any amendment or action thereon; decide all questions of order, subject to an appeal; declare all votes, and, on the demand of three members, take the question by yeas and nays. He shall appoint all special committees unless otherwise ordered, and in all other matters cause to be observed the rules usually adopted in deliberative assemblies. He may require any motion to be put in writing. Whenever a question is pending, he shall receive no motion but to adjourn, to lay on the table, for the previous question, to postpone to a day certain, to commit, to amend, or to postpone indefinitely—which several motions shall have preceded.

Questions of order.

Yeas and nays.

Special Committees.

Privileged motions.

ence in the order here arranged. When a ques-
tion has been decided, any member voting in the
majority may move a reconsideration at the same
or the next subsequent meeting. In the latter
case, such motion shall not prevail unless sus-
tained by a majority of the whole Board.

DUTIES OF SECRETARY.

SECT. 4. The Secretary shall record the pro-
ceedings of the Board in a permanent record book ;
give written notice of all meetings of the Board
and of committees, and when any matter is refer-
red to a sub-committee, notify its chairman ;
transmit all orders of the Board ; give certificates
of admission to scholars admitted to the High
School ; give certificates of approbation to appli-
cants for schools who have been approved by the
Board ; keep a list of elected teachers, with the
date of their election, the amount of their salary
and name or number of their school, and issue to
them notices of their election. He shall prepare
the school returns required by law. He shall
keep the records and papers connected with the
Board at the office of the Committee, and perform
all duties usually required of recording and cor-
responding secretaries, or that may at any time
be prescribed by the Board.

DUTIES OF THE STANDING COMMITTEES.

SECT. 5. The Committee on Accounts shall
examine all bills presented on account of schools,
and approve the same if correct, such bills being
first certified by the Superintendent or a sub-

committee, and presented to the Secretary one week before the end of each term.

Committee on
School Houses.

SECT. 6. The Committee on School Houses shall have the general oversight of the same, and of the arrangements for warming and ventilating school rooms; see that the several school houses and appurtenances are kept in good condition, and make such recommendations as to building and repairing as the interests of the schools require.

Committee on
Teachers.

SECT. 7. The Committee on Teachers shall examine annually in the month of February, and at such other times as the Board may direct, applicants for schools who are over eighteen years of age, and recommend to the Board suitable persons to receive certificates. No certificate shall be granted until after a personal examination by the Committee.

Gen. Stat., ch.
38, § 23, 24.

Committee on
Reports.

SECT. 8. The Committee on Reports shall present to the Board annually, in the month of December, the report required by law for distribution.

Gen. Stat., ch.
40, § 6.

Committee on
Books.

SECT. 9. The Committee on Books shall have the charge of matters relating to school books, and recommend to the Board such new books or changes as in their opinion the interests of the schools require.

Gen. Stat., ch.
38, § 28.

Committee on
Salaries.

SECT. 10. The Committee on Salaries shall make such recommendations as they deem expedient in relation to the salaries of teachers and others connected with the schools.

Committee on
Music.

SECT. 11. The Committee on Music shall exercise a general supervision over this department,

and make such recommendations in regard thereto as the interests of the schools require.

SECT. 12. All reports shall be made in writing. Reports.

DUTIES OF THE SUB-COMMITTEES.

SECT. 13. Every Sub-Committee shall visit each of his schools at least once a month, and keep himself familiar with its condition; he shall freely consult and advise with his teachers relative to discipline, management and instruction. In cases of vacancy or absence, he may employ teachers until the next meeting of the Board. He may make temporary arrangements for his schools in cases not provided for by these regulations, and shall report the same to the Board at its next regular meeting.

Sub-Committees and their duties.
Gen. Stat., ch. 38, § 26.

SECT. 14. Each member of the Board shall labor for the improvement of all the public schools, and shall assist in the visitations and examinations thereof as far as practicable.

Duties of members.

CHAPTER II.

SUPERINTENDENT OF PUBLIC SCHOOLS.

Election, &c.
Ord. ch. 28.
Gen. Stat., ch.
38, § 35.

SECTION 1. The Superintendent of Public Schools shall be elected by ballot at the first meeting of the Board, or whenever a vacancy occurs, and shall enter upon the duties of his office at such time as the Committee may determine.

Office and of-
fice-hours.

SECT. 2. He shall have his office in the School Committee Room, and be there each day one hour after the morning session of school, and on Wednesday and Saturday afternoons from two to three o'clock. In case of his temporary absence he shall notify the Chairman, and make such arrangement for the school business as he may deem best.

Absence.

General duties.

Visit schools.

Advise with
teachers.

Classification.

See to books
and studies, &c.

SECT. 3. He shall, under the direction of the Board, have the care and supervision of all the public schools, and shall visit each school as often as practicable and carefully examine its condition. He shall advise with teachers in reference to instruction and discipline; pay particular attention to the classification of the schools, that there may be, so far as practicable, a uniform course and system pursued in the different schools of the same grade; see that the prescribed text-books are used and studies pursued—and none others—and that the standing Regulations and all orders of the Board respecting the schools, are carried into effect.

SECT. 4. He shall exert his personal influence to secure a general and regular attendance, and shall equalize, as far as may be, the numbers in the different schools of the same grade. He shall have the direction and control of the transfer of scholars from one school to another of the same grade, and sign the certificates therefor. In making transfers, he shall especially regard the numbers in the schools and the residence of the scholars. In doubtful cases, he shall consult the appropriate Sub-Committees. He shall take measures to prevent truancy and non-attendance, and cause delinquents to be reported to the proper officer. He shall endeavor to secure the observance of the laws concerning the employment of children in manufacturing corporations.

Equalize the numbers in schools.

Transfer scholars and sign certificates.

Take cognizance of truancy and report to officer.

Children in manufacturing corporations. 9 Met. 562.

SECT. 5. He shall keep himself familiar with our school system and the general progress of education. He shall attend all meetings of the Board, and, when called upon through the Chairman, communicate such information as he may have upon the subject under discussion. He shall, when requested, attend the meetings of the standing or special committees and render them such service as may be required. He shall keep a list of the candidates who, at the last previous annual examination or at any subsequent examination, were awarded certificates of qualifications to teach, which list shall show the age, rank, residence and such additional facts as may be known to him respecting the character, experience and other qualifications of the applicants. He shall assist the several Sub-Committees and advise with them as to the condition of their schools.

Attend meetings of the Board, and give information.

Assist standing and special committees.

Keep a list of applicants for schools.

Assist Sub-Committees.

Annual report. He shall prepare and present to the Board during the month of December a general report of his labors for the year, accompanied by such statistical tables, and suggestions as to the improvement of the schools, as he may deem advisable.

Examine bills. SECT. 6. He shall receive and examine all bills of which this Board takes cognizance, and, if found correct, so certify and present the same to the Committee on Accounts. He shall pay particular attention to the school houses, yards and appurtenances, and to the methods of heating and ventilating. He may cause any slight repairs, immediately needed, to be made by the proper officer. He shall annually, in the month of December, compute the average expense per scholar in the High, Grammar and Primary Schools. He shall open an account with each school, in a book kept for that purpose, of the items of expense incurred. He shall ascertain all the facts with respect to non-resident pupils and pupils of non-resident parents, and report the same to the Board.

Attention to school-houses, &c.

Slight repairs.

Compute average expense per scholar.

Non-resident pupils.

SECT. 7. He shall, under the advice and direction of the Board, examine the candidates for promotion from the Primary Schools and cause the proper transfers to be made, provided such transfers shall receive the sanction of the Sub-Committees. In the examination of candidates for admission to the High School, he shall render such assistance as may be required of him by the Sub-Committee of that school.

Examine candidates for Grammar schools.

Assist in examination for High school.

SECT. 8. He shall keep a supply of the blanks required for the use of the Committee, teachers and himself; furnish to the order of teachers such

Keep blanks, &c.

blanks, registers, blank books, text books and stationery as he may deem necessary; receive the reports from teachers, and classify and record them at the end of each term. He shall procure the medals and diplomas to be awarded under the rules, and cause them to be properly inscribed.

Record teachers' reports.

Procure medals and diplomas.

CHAPTER III.

REGULATIONS OF THE SCHOOLS.

SCHOOL TERMS. TEACHERS' ELECTIONS AND THEIR DUTIES.

- School year.** SECTION 1. The school year shall commence on the first Monday in September, and consist of
- Terms.** four terms: The First ending with the Saturday next before Thanksgiving Day; the Second with the third Saturday in February; the Third with the second Saturday in May, and the Fourth with the last Saturday in July.
- Vacation.** SECT. 2. There shall be only the following vacations and holidays: One week from the end of the first, second and third terms; and from the end of the fourth term to the commencement of
- Holidays.** the next school year. Christmas day, Fast day, the Fourth of July, the Twenty-second of February, and every Wednesday and Saturday afternoon.
- School Hours.** SECT. 3. The school hours from March first to October thirty-first, inclusive, shall be from 8 1-2 to 11 1-2 o'clock, A. M., and from 2 to 5 o'clock, P. M.; from November first to the last day of February, inclusive, from 9 to 12 o'clock, M., and from 1 1-2 to 4 o'clock, P. M. Teachers may, however, detain a pupil for a reasonable time after the regular hour for dismissing school, either for pur-

poses of discipline or to make up deficient lessons.

SECT. 4. In the month of July or the first week in August, annually, the Board shall elect by ballot the teachers of the several schools of the city for the ensuing school year. No teacher shall be elected at any other time, except that on the last Monday of December, the Board may elect teachers to fill existing vacancies, and such teachers shall receive pay as permanent teachers until the close of the next school year at the rate provided for the first school year's service.

Election of Teachers.
Gen. Stat., ch. 38, § 23, 24.
4 Cush. 601.

Teachers are responsible to this Board for the faithful discharge of their duties, and subject to removal at any time.

Removal.
Gen. Stat., ch. 38, § 25.

There may be a Teacher of Penmanship, who shall give instruction in Book-keeping and Penmanship in the High and Grammar Schools, and whose duty shall from time to time be defined by the Board.

Teacher of Penmanship.

SECT. 5. No teacher shall keep a private school; nor shall he attend to the instruction of any private scholars before 6 o'clock, P. M. He shall not act as agent for the sale of any school books, nor accept a gift or consideration for procuring the introduction of books into our schools or for retaining any book therein.

Teachers not to keep private schools.
Not to act as book agents.

SECT. 6. Each principal shall make a report to the Superintendent at the expiration of each term, stating the whole number and the average of males and females in his school, and the average and per centage of daily attendance during

Teachers to make reports to Superintendent.

To keep record
of school.

that term. He shall make an annual report at such time and in such form as the Superintendent may direct. He shall keep a weekly record of his school, and record therein the visits of the members of the Board and of the Superintendent.

School Register.
Gen. Stat., ch.
40, § 1.
3 Cushing, 549.
What to be re-
corded in same.

Averages, how
found.

Rules relating
to school mem-
berships.

SECT. 7. Each teacher shall keep a register, furnished by the Superintendent and remaining the property of the city, in which he shall record his scholars' names, ages, attendance, date of admission, residence, and such other particulars as shall give the Committee a correct idea of the state of the school. The average daily attendance shall be found by dividing the total number of marks of presence of all the members, by the number of half days in the time specified. The average number of members shall be found by dividing the total number of marks of absence of all the members by the number of half days in the given time, and adding the result to the average daily attendance. To secure uniformity, the following "Rules relating to School Membership" will be observed:

1. Whenever a teacher has satisfactory evidence that a pupil has left school without the intention of returning, such pupil's name shall forthwith be stricken from the roll; and in making up the attendance averages, such pupil shall be regarded as having left school when his attendance actually ceased.

2. When a pupil is SUSPENDED from school by any of the rules of the School Board, whether for absence or for any other cause, his name shall be stricken from the roll.

3. When a pupil is absent from school more than five consecutive school days, for an unknown cause, his name shall be stricken from the roll at the end of five days, and the absences shall in all cases be recorded while the name remains on the roll; this rule shall not operate to prevent the SUSPENSION of a pupil under rule 2d, for a less number of absences.

4. For the purposes contemplated in the foregoing rules, no pupil shall be considered as absent who shall have been present at the regular school session of the half day.

SECT. 8. Any teacher desiring to be absent from school, shall apply to his Sub-Committee, Absence of teachers. who may excuse him for a time not exceeding twelve days. Any teacher who shall be absent beyond the time granted, unless in case of urgent necessity, shall be considered to have resigned. The Board alone, can grant leave for a longer absence.

SECT. 9. Teachers shall receive all applicants who are entitled to the privileges of their schools, Applicants for admission to schools. and in all cases of difficulty in the discharge of this duty, shall apply to the Superintendent for advice 23 Pick. 224. and direction. At the commencement of each term, they shall require the children of non-residents to present a certificate from the Superintendent that their tuition for the coming term has been paid, and shall neither receive nor continue such children in school, without this certificate. 5 Cush. 198. Gen. Stat., ch. 41, § 3, 4, 6, 9. All applications for children of non-residents shall Children of non-residents,—how admitted. be made to the Board, and no one admitted except by its vote. In such cases tuition for a full school term shall be prepaid, unless by special exemption. Such connection with the schools can be

Amount of tuition retained only by the continued pre-payment of tuition. Gen. Stat. ch 41, § 5, 7. tuition for each full term. The amount to be so paid for tuition shall be as follows: In the High School, \$10 per term; in the Grammar Schools, \$5 per term; in the Primary Schools, \$3 per term.

Vaccination. Gen. Stat. ch 41, § 8. SECT. 10. No child, unless coming from another school in Lowell, shall be admitted to school without a physician's certificate of vaccination or other satisfactory evidence of security against small pox.

Removal from one school to another. SECT. 11. No scholar leaving one school shall be received into another of the same or inferior rank, unless he shall have a certificate signed by the principal of the school left and the Superintendent, stating his standing, character, and the reasons for his removal, unless more than one year has elapsed since his attendance upon the school he leaves. The principal receiving such scholars shall preserve the certificates.

School premises to be used for no other purposes. Gen. Stat. ch. 38, § 40. SECT. 12. No part of the premises occupied by the public schools shall, in any case, be used for private schools, or for any other than the purpose for which they are designed.

Teachers to have the care of scholars. SECT. 13. Teachers shall exercise a general care over their scholars during school hours, out of school as well as within, and over the buildings occupied by them, including the fences, trees and yards. They will be held responsible for the neatness and good condition of their respective school-rooms and all articles connected therewith.

School rooms and premises.

SECT. 14. Teachers must pay close attention to the heating and ventilation of their school-rooms. They must endeavor to preserve a uniform temperature of 68° Fahrenheit, and they will be considered grossly negligent if through carelessness they permit it to vary more than five degrees from that standard.

Heating and Ventilation.

68° the standard.

They must, except in very severe weather, provide for a constant but gradual change of air, taking care not to expose the scholars to strong currents, and they must, under no circumstances, suffer their schools to remain in session more than thirty minutes without an efficient ventilation of the room.

Ventilation constant.

In intensely cold weather, if the occasional change of air reduces the temperature of the room below 63°, the scholars will, during the process, be employed in marching, gymnastics or other physical exercises, or be allowed to move freely about the room.

In severe weather, &c.

It is recommended that ordinary ventilation be secured by small openings on different sides of the room, rather than by large ones upon the same side. At recess and at the close of each session of the school, the teachers must make it a part of their duty to thoroughly renew the air of the room, and having done so, to see the room properly closed. Any deficiency in the means of heating or ventilating, they are to report promptly to the Superintendent, and also to their Sub-Committee.

Manner of ventilation.

Defects to be reported.

SECT. 15. Teachers shall punctually observe the hours appointed for opening and closing the schools. The school-rooms must be opened and all the teachers (principal and assistants,) be present when opened.

Teachers to be punctual. School rooms—when opened.

Schools—how
commenced.
Gen. Stat. ch., 38
§ 27.

Scholars, when
to be dismissed.

Recess must be
given at the
middle of ses-
sion.

Discipline.
Gen. Stat. ch.
38, § 10.

Corporal pun-
ishment.

Difficulties in
School.

Teachers may
suspend schol-
ars.
5 Cush. 198.

ent ten minutes before the time fixed for the commencement of each session, to admit the scholars as they arrive and prevent disorder. All the schools shall be commenced each day by the reading of some portion of the Bible in the common English version, after which prayer and singing are recommended. No scholar shall be allowed to leave school before the close of the session, except for sickness or other urgent cause, without a written or personal request by his parent or guardian.

SECT. 16. Scholars shall have a recess of fifteen minutes at the expiration of one-half of each school session, including the time of egress and ingress. Where but one yard is used, the boys and girls shall have separate recesses. Teachers are expected to devote the entire time of recess to the oversight of their schools.

SECT. 17. The discipline of the school shall be of a parental character. Politeness and good behavior shall be carefully inculcated. Corporal punishment shall only be resorted to when other means fail. On the occurrence of any difficulty in the schools, application may be made by teachers, parents, or guardians, to the Superintendent and the Sub-Committee, who shall arrange the difficulty or recommend action to the Board. For truancy, obstinate opposition to authority, continued neglect of duty, or any other sufficient cause, a principal may suspend a scholar. He shall forthwith notify the parent or guardian and apply to the Superintendent and to his Sub-Committee for advice. When the example of a scholar is

very injurious, when he manifests an habitual and determined neglect of duty, or disregard of the good order and rules of the school, and his reformation appears hopeless, the Board shall expel him. Board may expel.
 Any suspended scholar who shall express regret Gen. Stat. ch. 41, § 10, 11, 12.
 for his conduct and promise amendment, satisfactorily to the principal, may, with consent of the 2 Cush. 150.
 Sub-Committee, be restored. Any child expelled Restoration.
 who shall express his regret and promise amendment, may be re-admitted on probation by the Re-admission.
 Board, and if his reformation proves permanent, be restored to full standing.

SECT. 18. No teacher shall give his school any public notice or advertisement, nor take any vote of the scholars upon political or other public questions, nor permit any agent or other person to exhibit therein any book or other article nor to give a notice of any kind. He shall not allow any contribution to be taken nor subscription paper to be circulated, either by teacher, pupil or any other person. Teachers shall in no case sell to their scholars any school-book or other article unless authorised by the Committee on Books through the Superintendent.

SECT. 19. Teachers shall exert themselves to induce parents to furnish their children with books, Supply of books to destitute children.
 that none may apply to the city therefor except Gen. Stat. ch. 38, § 30, 31, 32.
 those in absolute need; and every supply of
 books at the city's expense shall be made upon a written order signed by the Superintendent. Every such order shall give the name of the scholar to be supplied, the full name of his parent or guardian, the street and number of his resi-

dence, the name of the book wanted, and its recognized price.

General Exercises Required.

SECT. 20. Every teacher in the Grammar and Primary Schools shall daily introduce some brief general and oral exercise connected with the studies of the school, and shall have short recitations in concert, taking care that negligent and backward scholars are not thereby enabled to avoid their share of study and labor. In all exercises and recitations, the teachers shall endeavor to so frame their questions as to lead the pupils to express their own thoughts and use their own language rather than the words of their text-books, and to lead their pupils to anticipate the next step in their studies before coming to it in their books. To this end, the teachers are expected to carefully study all prefaces, introductory remarks and notes connected with their text-books, and as a matter of *duty*, to read such books and periodicals of an educational character, as may be accessible to them.

Scholars to use their own language.

Teachers to make preparation.

History and Geography.

In teaching History, the instructors shall impress on the pupils' minds the leading facts, paying little attention to unimportant details and dates, and shall call their attention to every historical allusion in any of their studies. They shall keep up, as far as may be, the connection between this study and Geography, and in neither shall they require or allow their pupils to commit to memory and repeat the words of their text-books.

Lessons not to be committed to memory.

Outline Maps and Map-Drawing.

Geography must be taught in connection with outline maps, which must be referred to in *every* geographical exercise. Map-drawing, first by

copying and finally from memory, must be taught regularly by every teacher in the Grammar Schools, and is recommended for the older pupils in the Primary Schools.

Every pupil in the Primary Schools shall daily have instruction in Mental Arithmetic and its tables, but shall not be required to learn the multiplication table beyond 12×12 . Every pupil in the Grammar Schools shall be exercised daily in Colburn's Intellectual Arithmetic, either in general or special exercises; no amount of instruction in written Arithmetic will be an equivalent for this exercise.

Each teacher must ever bear in mind that English Grammar teaches the student to speak and write the language correctly, and must therefore pay close attention to the language used by the pupils, and lose no opportunity of leading them to apply their knowledge of Grammar to their daily conversation. Attention shall be given in the upper half of the Grammar Schools and in the High School to English composition, and pains be taken to inculcate a plain, unaffected style and a selection of practical subjects best adapted to the powers of the scholar.

In every school, it is required that regular instruction, in the form of general exercise, be given in the geography, history and general affairs of the city of Lowell, the county of Middlesex and the state of Massachusetts. In these, as well as in all other matters taught, the teacher is expected to acquire information much beyond that which is before the pupils in their text-books.

Mental Arithmetic.

Grammar to be applied to pupils' language.

Geography &c. of City, County and State.

Teachers to gather information beyond text books.

Order of Exercises to be always at hand, &c.

SECT. 21. Every teacher, at the commencement of a term, shall prepare an Order of Exercises showing the exact time allotted to each exercise, and shall at all times have the same conspicuously placed in the school-room. A copy shall be sent at the beginning of each term to the Superintendent, who shall report any neglect in this respect to the School Committee, at their first meeting in the term.

Books and studies.

Classification.

SECT. 22. The only books used and studies pursued in the public schools shall be such as have been authorized by this Board. Scholars shall be so classified and studies so arranged in the several schools of the same grade, that progress may be uniform in all the branches.

Physical exercises at each session.

SECT. 23. Exercises in gymnastics shall be practiced in all the public schools of whatever grade, and at least five minutes of each session be devoted thereto. In the Primary Schools the exercises shall consist of the simpler forms of free gymnastics, and of the more elaborate in the High and Grammar Schools.—all under the general direction of the Superintendent, who shall especially enforce this requirement.

Examinations.

SECT. 24. Every school shall be publicly examined at the close of the second and fourth terms. One day shall be assigned for the examination of the High School, and the same time for each of the Grammar Schools. Examinations shall be directed by the Sub-Committees, and be confined to a general review of the studies pursued.

SECT. 25. The teachers may, for the purpose of observing the modes of discipline and instruc-

tion, suspend their schools for one session, and visit any of the public schools in the city, of the same grade with their own; but such visits shall not be made oftener than once a quarter, and not without the consent in each instance of their Sub-Committees.

SECT. 26. Teachers shall note on their registers all visits made to their schools by members of the Committee, the Superintendent, Teachers or other persons.

Visits to be noted.

SECT. 27. No child who comes to school without proper attention having been given to the cleanliness of his person and of his dress, or whose clothes are not properly repaired, shall be permitted to remain, but shall be sent home to be prepared for school in a proper manner.

Cleanliness of scholars.

SECT. 28. The attention of teachers is particularly directed to the following from the General Statutes of the Commonwealth, chapter 38, section 10:

Duties of teachers in the preparation of citizens.

It shall be the duty of the president, professors and tutors of the University of Cambridge, and of the several colleges, and of all preceptors and teachers of academies, and of all other INSTRUCTORS OF YOUTH, to exert their best endeavors to impress on the minds of children and youth, committed to their care and instruction, the principles of piety, justice and a sacred regard to truth, love to their country, humanity and universal benevolence, sobriety, industry and frugality, chastity, moderation and temperance, and those other virtues which are the ornament of human society, and the basis upon which a republican constitution is founded; and it shall be the DUTY of such instructors to endeavor to lead their pupils, as their ages and capacities will admit, into a clear understanding of the tendency of the above-mentioned virtues to preserve and perfect a republican constitution, and secure the blessings of liberty, as well as to promote their future happiness, and also to point out to them the evil tendency of the opposite vices.

Gen. Stat., ch. 38, § 10.

SECT. 29. All teachers shall keep in their school-rooms a copy of the Regulations of the Public Schools; they shall make and keep themselves familiar with them, and shall allow all visitors to freely consult the same.

Teachers to
keep and study
Regulations.

CHAPTER IV.

REGULATIONS OF THE SEVERAL GRADES OF SCHOOLS.

The public schools of the city shall be divided into the following grades, viz : Primary, Grammar, High and Evening Schools.

I. PRIMARY SCHOOLS.

SECTION 1. No child under five years of age shall be admitted to the Primary Schools. Age for admission.

SECT. 2. Scholars shall be instructed in the Alphabet ; Reading ; Spelling ; Punctuation ; Abbreviations ; Numeral Letters ; the Multiplication Table ; Mental Arithmetic ; Enunciation ; the Definition of words, terms and phrases ; Primary Geography, orally and by maps ; Writing and Drawing by the use of slate and blackboard ; together with Singing and such general exercises as will interest and profit them. Studies and exercises.

SECT. 3. The teachers are enjoined to maintain a mild but firm and equal government ; to allow frequent changes of posture, and such alternation from study to rest and from one recitation to another as will best promote the health and comfort of their pupils. They shall endeavor to inspire their pupils with a love of learning and truth, and to train them in habits of prompt and affectionate obedience. Order and discipline.

II. GRAMMAR SCHOOLS.

SECTION 1. A candidate for admission to a Grammar School must satisfy the Superintendent on examination that he is prepared for admission in Reading, Spelling, Punctuation, Numeration, the Addition and Subtraction tables, the Multiplication table to 12×12 , the whole of Walton's Primary Arithmetic, and in the elements of Geography. Every candidate shall bring a certificate of qualification from the Superintendent. An applicant from a Primary School shall be admitted only at the commencement of a term. Other applicants may be admitted at any time.

Qualifications
for admission.

Time of admis-
sion.

Studies.
Gen. Stat., ch.
38, § 1.

SECT. 2. The studies shall be Reading, Spelling, Writing, Grammar, Arithmetic, Geography, History of the United States, Book-keeping and Drawing.

Punctuality of
scholars.

SECT. 3. The doors shall be closed at the time fixed for opening the school, after which no scholar shall be admitted during the session without furnishing a satisfactory excuse.

No scholar shall be re-admitted to school after absence, without a satisfactory excuse from the parent or guardian.

Number of
scholars in each
department.

SECT. 4. Each department of the Grammar Schools, excepting the Principal's room, shall contain not more than sixty scholars, who shall be classified according to their ages and attainments. Each assistant shall be responsible for the good order and instruction in her department, but shall apply to the principal in difficult cases. The principal shall have the supervision and control

of the whole school, and with his first assistant shall instruct the first division. All changes from room to room shall be made by the Sub-Committee or Superintendent.

III. HIGH SCHOOL.

SECTION 1. Every candidate for admission to the High School shall be at least twelve years of age, and shall bring from the principal of his last school a certificate of good moral character and of presumed qualifications in Spelling, Reading, Defining words, Writing, Colburn's Intellectual Arithmetic, Written Arithmetic, History of the United States, Geography, and Grammar, including parsing and the analysis of sentences.

SECT. 2. Candidates shall be examined annually at the close of the fourth term. For this purpose the Board shall cause twenty questions to be prepared in each of the following branches, viz: Spelling, Grammar, Geography, History of the United States, and Arithmetic, to be answered by the candidates in writing. The Board shall fix the standard of admission. No candidate ranking below the fixed standard shall be admitted except by vote of a majority of the Board. The High School teachers shall make the examination and ascertain the rank of each candidate, (under the direction and supervision of the Sub-Committee,) and report the result to the Board. Qualified candidates shall be furnished with certificates of admission, signed by the Secretary, and shall enter the school only at the beginning of the next term, except by special vote of the Board.

Qualifications

for admission.

Gen. Stat., ch.

41, § 4.

Examination of

candidates for

admission.

Standard, how

fixed.

Rank, how de-

termined.

When to enter

school.

Order, supervision and arrangement of school.

SECT. 3. The school shall be under the direction and management of the principal, who shall frequently visit the several rooms and be responsible for the progress and good order of the whole school. The assistants shall occupy such rooms and teach such branches as shall be directed from time to time by the Sub-Committee, and shall govern and direct their pupils while in their rooms, subject to the supervision of the principal. Politeness and good behavior shall be carefully cultivated.

Absence.

SECT. 4. When a scholar has been absent more than one week on account of sickness, or for more than one day for other cause without permission of the Principal previously obtained, he shall be re-admitted only with the consent of the Superintendent, subject to appeal to the Sub-Committee.

How continued.

SECT. 5. Scholars wishing to retain or renew their connection with the school, shall notify the principal previous to the annual examination of candidates for admission.

Diploma.

SECT. 6. Every scholar who shall complete with credit the course of study prescribed for this school, and has sustained a good moral character, shall receive a diploma from this Board; provided, no scholar shall receive a diploma who has not been present at every public examination of the school during his course, or who has not otherwise passed a satisfactory examination equivalent thereto.

SECT. 7. The Carney Medals shall, at the close of each school year, be distributed by the Board to the three male members and the three female

members of the senior class who are the most distinguished for excellence of character and scholarship, and are residents of the city.

SECT. 8. No scholar shall attend the High School more than four years, except by a vote of ^{Term of attendance.} the Board.

SECT. 9. The studies pursued in the High School shall be as follows :—

ENGLISH COURSE.

First Year.

Algebra (Sherwin's).
Physical Geography (Warren's).
Physiology (Corning's).
General History (Wilson's).
Natural Philosophy (Quackenbos').

Second Year.

General History (continued).
Natural Philosophy “
Chemistry (Youman's).
Geometry (Davies').

Third Year.

Arithmetic (Eaton's).
English Grammar (Brown's and Kent's).
Astronomy (Olmsted's).
Rhetoric (Quackenbos').

CLASSICAL COURSE.

First Year.

Latin Grammar (Harkness').
Latin Reader (Harkness').

Second Year.

Latin Reader (continued).
Cæsar's Commentaries (Andrews').
Greek Grammar (Crosby's).
Greek Lessons “

Third Year.

Greek Grammar (continued).
Xenophon's Anabasis (Crosby's).
Virgil's Æneid (Bowen's).

Fourth Year.

Xenophon's Anabasis (continued).
Cicero's Orations (Johnson's).
Homer's Iliad (Owen's).

NOTE. The foregoing are *indispensable* to the course. Classes may also be formed, as the wishes of parents and pupils and the judgment of teachers, with the approval of the Sub-Committee, shall require, in Book-keeping, Natural History, Botany, Geology, Useful Arts, Mental Philosophy, French Language, English Synonyms, and English Pronunciation with Reading and Spelling. It is intended that each pupil shall pursue, at least, three studies each term. English, Latin and Greek Composition, and Declamation, at the discretion of the Teachers. The Dictionaries used will be, English (*Webster's and Worcester's*)—Latin (*Andrews' and Leverett's*)—Greek (*Iiddell & Scott's*)—French (*Spier's, Jewett's Edition*)—For Writing Greek and Latin, *Arnold's Greek Prose Companion* and *Arnold's Latin Prose Companion*—Ancient Geography (*Mitchell's*).

IV. EVENING SCHOOLS.

When to be
kept.

Gen. Stat., ch.
38, § 7, 8. -

SECTION 1. The Evening Schools shall be open from half-past seven to nine o'clock, on such evenings as the Board shall order.

Age of scholars.

Books and
studies.

SECT. 2. No person under fifteen years of age shall be admitted into these schools. The books used, and the studies pursued, in the Primary and Grammar Schools, shall, as far as practicable, be adopted in the Evening Schools.

Sub-Committee
and Examination.

SECT. 3. These schools shall be under the direction of a Sub-Committee, and shall be examined by the Board at their close.

REVISION OF THE RULES.

The consent of three-fourths of the members present at any meeting shall be requisite for the suspension, repeal or amendment of any of these Rules and Regulations, unless the motion for the same shall have been made at least one week. In which case, the vote of a majority of the whole Board shall be sufficient.

SALARIES OF TEACHERS, BILLS, &c.

SECTION 1. The salaries of teachers, for the four terms in each school-year, are established as follows. No compensation is allowed for the vacations. Salaries.

HIGH SCHOOL.

Principal,	\$2,000.00
Three Male Assistants, each	1,500.00
Two Female Assistants, each	550.00

GRAMMAR SCHOOLS.

Seven Male Principals, each	1,500.00
One Female Principal,	800.00
First Assistants, each	450.00
Other Assistants, first year,	400.00
second year,	425.00
after second year,	450.00
One Teacher in Penmanship,	1,500.00
One Teacher in Vocal Music,	1,500.00

PRIMARY SCHOOLS.

Teachers, first year, each,	400.00
second year, each,	425.00
after second year, each,	450.00

TEMPORARY TEACHERS.

Male Teachers, for every school-day's service,	3.00
Female Teachers in High School, for every school-day's service,	1.25
Female Teachers in other Schools, for every school-day's service,	1.00

Temporary
teachers.

SECT. 2. When a temporary teacher is employed for the full term, such teacher may charge for the whole number of school days included in said term.

Teachers' bills,
when payable.

How made out.

Deduction for
absence.

SECT. 3. Teachers' bills for services shall be payable on the last day of each term. Each elected teacher shall present his bill to the Superintendent for his approval one week before said day, charging in his bill, for each term, one-fourth part of his salary, and deducting, for every school day that he is absent from duty, the amount payable to a temporary teacher in his place; *provided*, that if his absence during any term exceeds twelve days, he shall deduct his full pay for each day of such excess. Temporary teachers shall present their bills at the same time, charging for the number of school days of actual service. Wednesday and Saturday forenoons shall be reckoned as whole days.

Pay for sweep-
ing, making fire
and cleaning.

When payable.

SECT. 4. The principals of the several schools shall employ some person to sweep and wash their school-rooms, and to make the fires in the same, where heated by stove. There shall be paid per term for sweeping the High School rooms, ten dollars, the Grammar and Primary School rooms, for each room, one dollar; and for building fires in Primary Schools, three dollars per year. An amount, not exceeding one dollar per term, shall be allowed for cleaning school-rooms, when authorized by the Superintendent. The above bills are to be presented one week before the end of each term, except those for building fires, which are to be made out for the year, and presented one week before the end of the third term.

TABLE OF THE HIGH AND GRAMMAR SCHOOLS.

Schools.	Location.	Sub-Committees.	Teachers.
High School.	Anne and Kirk Streets.	G. F. Richardson, G. A. Gerry, J. W. B. Shaw, J. B. Francis, J. H. Buttrick, J. A. Goodwin.	Charles C. Chase, <i>Principal</i> ; Levi S. Burbank, James S. Russell, Joseph H. McDaniels, Mary A. Webster, Elizabeth B. Russell, <i>Assistants</i> . Bertram Harrison, <i>Teacher of Book-keeping and Penmanship in the High and Grammar Schools</i> . Geo. F. Willey, <i>Teacher of Vocal Music in High and Grammar Schools</i> .
GRAMMAR. Edson . .	South and Highland Street.	John F. Frye. .	Perley Balch, <i>Principal</i> ; Harriet C. Hovey, Anna A. Sargent, Maria C. Richardson, Mary F. Carleton, Mary F. Dana, Olive W. Beane, Mary A. Balch, <i>Assistants</i> .
Bartlett .	Clark Street.	G. H. Whitmore.	Sam'l Bement, <i>Principal</i> ; Marianna B. Kent, Mary E. Pike, Sabra Wright, Marietta Melvin, Mary C. Gardiner, Sophia P. Wetherbee, Caroline E. Holt, <i>Assistants</i> .
Franklin .	Middlesex and Branch Streets.	John Davis. . .	Amos B. Heywood, <i>Principal</i> ; Mary F. Hopkins, Elizabeth W. Clement, Sarah C. Weymouth, <i>Assistants</i> .
Mann . .	Lewis Street.	Rufus Rogers. .	Samuel A. Chase, <i>Principal</i> ; Eliza A. D. Tapley, Laura F. Howe, Celestia P. Chase, <i>Assistants</i> .
Moody . .	East Merrimack Street.	L. E. Shepard. .	Joseph Peabody, <i>Principal</i> ; Frances A. Holden, Diana M. Huntoon, Helen A. Haggett, Laura J. Pinder, S. E. Bailey, Mary E. Way, <i>Assistants</i> .
Green . .	Middle Street.	S. W. Stickney.	Charles A. Chase, <i>Principal</i> ; Alice J. Hardman, Mary E. Wight, Jennie H. Dennis, Ellen S. Burrill, <i>Assistants</i> .
Colburn .	Lawrence Street.	J. Merrill. . .	Fidelia O. Dodge, <i>Principal</i> ; Elizabeth W. Frost, Susan A. Andrews, Hattie C. Critchet, <i>Assistants</i> .
Varnum .	Myrtle Street.	D. P. Gage. . .	Daniel P. Galloupe, <i>Principal</i> ; Harriet Bradley, Addie L. Sargent, Sarah A. Bradley, <i>Assistants</i> .

TABLE OF THE PRIMARY SCHOOLS.

Schools.	Location.	Sub-Committees.	Teachers.
No. 1 .	Middle Street. .	S. W. Stickney. . . .	Nettie E. Carleton.
No. 2 .	School.	Rufus Rogers.	Sarah A. Hadley.
No. 3 .	Paige.	S. W. Stickney. . . .	Stella Tullock
No. 4 .	Chapel.	John F. Frye.	Lucy F. Carleton.
No. 5 .	Elliot.	John H. Buttrick. . .	Elizabeth A. Stearns
No. 6 .	Middlesex. . . .	John H. Buttrick. . .	Clara E. Bailey.
No. 7 .	Chapel.	Joshua Merrill. . . .	.....
No. 8 .	Worthen.	S. W. Stickney. . . .	Martha A. Franklin.
No. 9 .	Church.	Luther E. Shepard. . .	Martha S. Williams.
No. 10 .	Merrimack. . . .	Rufus Rogers.	Martha A. Neal.
No. 11 .	Cross.	J. B. Francis.	Bella V. McAnulty.
No. 12 .	Tilden.	J. B. Francis.	Eliza Merriam.
No. 13 .	Carter.	J. W. B. Shaw.	Fannie M. Wilkins.
No. 14 .	High.	John A. Goodwin. . . .	Harriet A. Hadley.
No. 15 .	Middlesex. . . .	John H. Buttrick. . .	Mary A. Tapley.
No. 16 .	Fayette.	John A. Goodwin. . . .	Carrie M. Garland.
No. 17 .	Branch.	John Davis.	Sarah C. Fiske.
No. 18 .	Central.	Joshua Merrill.	Eliza Cowley
No. 19 .	Charles.	John F. Frye.	Isabella E. Horner.
No. 20 .	Carter.	J. W. B. Shaw.	Martha L. Wilkins.
No. 21 .	Chapel.	J. Merrill.	Sarah L. Gates.
No. 22 .	Lewis.	Rufus Rogers.	Annie E. Richardson.
No. 23 .	Tilden.	J. B. Francis.	Ella F. Perkins.
No. 24 .	Howard.	John Davis.	Ellen A. Bridge.
No. 25 .	High.	John A. Goodwin. . . .	Aurelia L. Howe.
No. 26 .	Salem.	J. B. Francis.	Nellie M. Brown.
No. 27 .	Lawrence.	Joshua Merrill.	Charlotte S. Kaime.
No. 28 .	Grand.	John Davis.	Emily M. Warren.
No. 29 .	Middle.	S. W. Stickney.	Jane E. Horner
No. 30 .	Elliot.	Joshua Merrill.	Mary E. Hardman.
No. 31 .	Powell.	John Davis.	Abby D. Gates.
No. 32 .	Adams.	Rufus Rogers.	Ellen F. Coughlan.
No. 33 .	Lawrence.	Joshua Merrill.	Maria Osgood.
No. 34 .	Branch.	John Davis.	Lizzie S. Lowe.
No. 35 .	East Merrimack.	Luther E. Shepard. . .	Helen M. Hunt.
No. 36 .	Cabot.	Geo. H. Whitmore. . .	Mary A. Beard.
No. 37 .	Fayette.	John A. Goodwin. . . .	Lucretia A. Day.
No. 38 .	Cabot.	Geo. H. Whitmore. . .	Mary O. Kidder.
No. 39 .	Charles.	John F. Frye.	Helen C. Frye.
No. 40 .	Rock.	J. W. B. Shaw.	Sarah A. Scales.
No. 42 .	Lawrence.	Joshua Merrill.	S. Lizzie Dean.
No. 43 .	Cross.	Luther E. Shepard. . .	Mary F. Cumiskey.
No. 44 .	Lewis.	Rufus Rogers.	Mary L. Hill.
No. 45 .	Rock.	J. W. B. Shaw.	Ellen M. White.
No. 46 .	Myrtle.	Daniel P. Gage.	Mary E. Page.
No. 47 .	Myrtle.	Daniel P. Gage.	Miranda W. Bradley.
No. 48 .	Coburn.	Daniel P. Gage.	Emma C. Sawyer.

LIST OF SCHOOL COMMITTEE.

[This list includes not only those who have been members by election, but also those who have been members *ex-officiis*, viz:—1. All who have been Mayors of Lowell. 2. All who were members of the Board of Aldermen between the time of the incorporation of the city in 1836, and the adoption of the Amendment to the City Charter in 1856. 3. All who have been Presidents of the Common Council since the adoption of said Amendment.]

Abbott James C., 1859, 1860, 1861, 1862, 1863, 1864.	Blanchard Amos, 1831, 1832, 1836, 1838, 1839, 1840, 1843, 1844.
Adams John R., Alderman 1840, 1841.	Blanchard C. F., Alderman 1854.
Adams Shubael P., 1854.	Blaisdell H. G., 1853, 1854.
Aiken John, 1835, 1842. Alderman 1837, 1841.	Brackett Shadrach R., Alderman 1855.
Allen Nathan, 1851.	Bragdon George, Alderman 1847.
Ames Seth, 1831. Alderman 1836, 1837, 1840.	Brewster William H., 1849, 1851, 1855.
Austin William, 1834. Alderman 1836.	Brooks A. L., 1857, 1858, 1859. Alderman 1849, 1855.
Ayer J. H. B., 1854. Alderman 1849, 1850. Mayor 1851.	Brown Abner H., 1845, 1848, 1849.
Ballard Joseph, 1841.	Brownell George, Alderman 1838, 1849.
Bancroft Jefferson, Alderman 1841, 1842. Mayor 1846, 1847, 1848.	Bullens Joseph M., Alderman 1852, 1853.
Bancroft Selwin, Alderman 1844, 1845, 1846.	Burbank Samuel, Alderman 1852, 1856.
Barry William, 1851.	Burnham Walter, 1852, 1853, 1857, 1858.
Barnaby James, 1833, 1834.	Burnap U. C., 1840, 1842, 1843.
Bartlett Elisha, 1830. Mayor 1836, 1837.	Burnham P., 1857, 1858.
Batchelder Samuel, 1826.	Butterfield John, 1842.
Bean George W., 1857.	Butterfield Joseph, Alderman 1846, 1847.
Beard Ithamar A., 1827, 1844. Alderman 1842.	Buttrick John A., 1862, 1863.
Beard Ithamar W., 1844, 1849, 1850.	Buttrick John H., 1867.
Bedlow Joseph, Alderman 1840, 1849, 1850, 1852.	Carleton George H., Alderman, 1838, 1839, 1841.
	Carter Daniel, Alderman 1849,

- Case Eliphalet, 1829, 1830, 1834, 1835.
 Chellis Seth, Alderman 1837, 1838, 1841.
 Cheney John L., 1858, 1859, 1863.
 Child Linus, 1859, 1860. Alderman 1847.
 Child Willard, 1848, 1849, 1850.
 Clark John, 1835, 1842. Alderman 1839.
 Clark Samuel, 1837.
 Cleaveland John P., 1857, 1858.
 Coburn C. B., Alderman 1856.
 Coburn J. B. V., Alderman 1852, 1853, 1854.
 Colburn Warren, 1826, 1827.
 Conant Oliver J., Alderman 1856.
 Converse Joshua, Alderman 1851.
 Cook James, Mayor 1859.
 Cookson John, 1827.
 Cooper Isaac, Alderman 1846.
 Corliss H. G. F., 1839.
 Cowley Charles, 1857, 1858, 1859.
 Cox G. F., 1852.
 Crombie D. D., Alderman 1849, 1850.
 Crosby Josiah, 1830.
 Cutler Lucius A., Alderman 1851.
 Dadmun J. W., 1856.
 Dalton John C., Alderman 1845, 1846.
 Dana Samuel L., 1847.
 Dana David, Alderman 1848.
 Davis John, 1865, 1866, 1867.
 Douglas Erastus, 1860, 1861. Alderman 1848.
 Eaton W., 1855.
 Eddy, D. C., 1853.
 Edson Theodore, 1826, 1827, 1829, 1831, 1832, 1833, 1834, 1835, 1837, 1838, 1839, 1846, 1847, 1852.
 Fenno James, Alderman 1847.
 Fiske William, Alderman 1851, 1852, 1855.
 Fletcher Horatio, Alderman 1854.
 Fletcher L. J., 1857, 1858.
 Francis J. B., 1867. Alderman 1849, 1850.
 Freeman E. W., 1829, 1830, 1832.
 French B. F., Alderman 1838, 1839.
 French Cyril, Alderman 1841, 1842, 1843, 1849.
 French J. B., Mayor 1849, 1850.
 Frost Abner, Alderman 1855.
 Frye John F., 1865, 1866, 1867.
 Fuller Elisha, 1838, 1840, 1841.
 Gage Daniel P., 1866, 1867.
 Gardner Calvin, 1831, 1832.
 Gardner William, Jr., 1828, 1829.
 Gerrish Thomas F., 1862, 1863.
 Gerry Gustavus A., President Common Council 1866, 1867.
 Goodwin John A., 1865, 1866, 1867.
 Graves John W., 1833, 1834, 1835. Alderman 1842.
 Graves Jacob, Alderman, 1848.
 Gray William C., Alderman 1846.
 Green Benjamin, 1841, 1842.
 Green John O., 1826, 1827, 1836, 1838, 1840, 1843, 1844, 1845, 1846, 1847, 1850. Alderman 1839.
 Griffin Joseph, Alderman 1843, 1844.
 Hanks Stedman W., 1844, 1845, 1848, 1849.
 Hardy Phillip, Alderman 1850, 1851.
 Hatch William H., 1864.
 Haven Samuel F., 1833, 1834.
 Heydock William T., 1833.
 Hinkley Frederick, 1858, 1859.
 Holton Frederick, President Common Council 1857.
 Hooke H. M., 1860, 1861.
 Hopkinson Thomas, 1836.
 Hosford Hocum, Mayor 1862, 1863, 1864.
 Howard Horace, 1851.
 Howe Lorenzo G. Alderman 1855.
 Howe Moses G., 1859.
 Huntington Elisha, 1826, 1831, 1832, 1833, 1861, 1862, 1863, 1864. Mayor 1839, 1840, 1841, 1844, 1845, 1852, 1856, 1858. Alderman 1847, 1853, 1854.
 Hutchinson S. K., Alderman 1853, 1854.
 Hyde Amos, 1848.

- Johnson Henry C., Alderman 1843.
 Johnson John, 1828.
 Johnson Jonathan, Alderman 1856.
 Johnston W. S., Alderman 1855.
 Judkins J. J., 1864, 1865.
 Kidder Moses W., 1860, 1861.
 Kimball Charles, 1861, 1862, 1863, 1864, 1865, 1866.
 Kimball Gilman, 1832, 1839, 1843.
 Kittredge J. G., Alderman 1837.
 Knapp Chauncey L. 1864, 1865.
 Knapp Daniel, Alderman 1845, 1846.
 Knowles John A., 1830, 1836, 1837, 1855.
 Knowlton, J. S. C., 1827.
 Lang David G., 1859, 1860.
 Lawrence Ambrose, 1852. Alderman 1851. Mayor 1855.
 Lawrence Luther, Mayor 1838, 1839.
 Lincoln Levi E., 1857.
 Livingston William, Alderman 1842.
 Mack Sewall G., Alderman 1847. Mayor 1853, 1854.
 Mansur Aaron, Alderman 1836.
 Mansur Stephen, Alderman 1840, 1847, 1853. Mayor 1857.
 May George, 1846.
 Maynard John, 1850, 1851, 1855.
 McAlvin John B., 1851.
 Means Robert, 1840, 1841.
 Merrill Abraham, 1828.
 Merrill Joshua, 1833, 1834, 1855, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867.
 Merrill Joseph, 1853, 1854, 1855.
 Miles Henry A., 1838, 1839, 1846.
 Miner A. A., 1845, 1846, 1847.
 Mixer John, Alderman 1850.
 Moody Andrew, 1857, 1858.
 Morrill Jonathan C., 1828, 1829.
 Newman William, Alderman 1848.
 Nichols Gilman N., Alderman 1848.
 Nichols Oldin, 1857, 1859, 1860, 1861, 1862.
 North William, 1856, 1857, 1858, 1859, 1860. Alderman 1851, 1852.
 North William L., President of Common Council 1861.
 Nute Andrew T., Alderman 1855.
 Parkhurst Matthias, 1843, 1844.
 Parker Frederick, 1845, 1846, 1847, 1848.
 Parmenter Horace, 1864.
 Patch E. B., 1849, 1850, 1854, 1856.
 Peabody Josiah G., Alderman 1850. Mayor 1865, 1866.
 Peck J. Oramel, 1865, 1866.
 Pillsbury Harlan, 1828, 1829. Alderman 1840, 1843.
 Pillsbury John D., 1835, 1837.
 Porter Lemuel, 1836, 1837, 1841.
 Pratt Samuel C., 1856, 1857.
 Rand James H., Alderman 1856.
 Richardson Daniel S., Alderman 1848.
 Richardson, George F., President Common Council 1862, 1863. Mayor 1867.
 Ripley George, President Common Council 1864, 1865.
 Robbins, Jacob, 1836, 1837.
 Rogers Rufus, 1867.
 Rolf Abiel, Alderman 1851.
 Salmon W. F., President Common Council 1860.
 Sargeant B. C., President Common Council 1858. Mayor 1860, 1861.
 Sawtell Josiah, Alderman 1847, 1848.
 Shattuck George W., 1853, 1863, 1864.
 Shaw J. W. B., 1865, 1866, 1867.
 Shepard Luther E., 1866, 1867.
 Sherman Edward F., 1858, 1859, 1863, 1864.
 Smith Henry, Alderman 1844, 1845, 1846.
 Smith John 1839.
 Smith J. W., 1852.
 Southworth William S., 1854, 1858, 1859.
 Spalding Ira, Alderman 1853, 1854.
 Spalding Sidney, Alderman 1843.

- Sperry Charles, Alderman 1854.
 Stevens Alpha, Alderman 1852, 1853.
 Stevens George, 1859, 1860, 1861, 1862.
 Stickney Samuel W., 1861, 1862, 1863, 1864, 1865, 1866, 1867.
 Street Owen, 1860, 1861, 1862, 1863, 1864, 1865.
 Swan Joshua, Alderman 1837.
 Tapley Joseph, Alderman 1836.
 Thayer Thomas B., 1835.
 Thompson Zenas, 1838.
 Thurston Nathaniel, 1840. Alderman 1842.
 Tilden Charles L., Alderman 1838, 1839, 1843.
 Towne Joseph H., 1850.
 Townsend James, Alderman 1850, 1851.
 Tuck Edward, Alderman 1856.
 Twining William, 1832.
 Twiss James J., 1864, 1865.
 Tyler Jonathan, Alderman 1840.
 Varney Samuel J., Alderman 1852.
 Walker Benjamin, Alderman 1836.
 Walker Benjamin, 1859, 1860.
 Warren George F., 1865, 1866.
 Watson Edward F., Alderman 1844, 1845.
 Webber George N. 1866.
 Webster William P., 1860, 1861, 1862, 1863. Alderman 1856.
 President Common Council 1859.
 Wells David, 1841, 1842, 1843.
 Whipple O. M., Alderman 1836, 1838, 1839, 1844, 1846, 1848.
 White Joseph, Alderman 1853, 1854.
 Whitmore George H., 1867.
 Wilder Charles H., Alderman 1856.
 Wise William G., 1852, 1853, 1862, 1863.
 Woodbury Augustus, 1856, 1857.
 Woodward Daniel, Alderman 1855.
 Wright Alexander, Alderman 1836, 1837.
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- shall receive applicants, 17.
- shall *require* children of non-residents to present a certificate from Superintendent, 17.
- shall not receive nor continue children of non-residents without certificate, 17.
- require from children certificate of vaccination, 18.
- shall sign certificate of removal, 18.
- shall preserve certificates, 18.
- shall have the care of scholars out of school, 18.
- held responsible for the neatness of their school rooms, 18.

TEACHERS, (*Continued*).

- shall pay attention to heating and ventilation, 19.
- to be punctual, 19.
- open school rooms ten minutes before the commencement of each session, 20.
- shall give recess in the middle of the session, 20.
- shall exercise parental discipline, 20.
- may suspend for truancy, 20.
- shall not give any public notice, &c., 21.
- shall try to induce parents to supply their children with books, 21.
- shall introduce daily general exercises, 22.
- shall pay close attention to the *language* of pupils, 23.
- shall teach Geography, &c., of Lowell, Middlesex County and Massachusetts, 23.
- shall prepare an "Order of Exercises," 24.
- shall use none but the books prescribed, 24.
- shall have gymnastics every session, 24.
- may visit schools, 25.
- shall record visits of the Committee, &c., 25.
- shall pay attention to the cleanliness of pupils, 25.
- shall pay particular attention to duties enjoined in sec. 10, chap. 38, of General Statutes, 25.
- shall keep and study Regulations, 26.
- table of, 35, 36.

TERMS, 14.

TIME of admission to Grammar Schools, 29.

of admission to High School, 30.

TRANSFER of scholars, 11.

TRUANCY, scholars may be suspended for, 20.

TRUANTS, 11.

TUITION to be paid by non-residents, 17, 18.

VACATIONS, 14.

VACCINATION, certificate of required, 18.

VENTILATION, 19.

VISIT, teachers may visit, 24.

to be recorded, 25.

VOTING not allowed in school, 21.

City Document.

CITY OF LOWELL.



REPORT
OF THE
JOINT SPECIAL COMMITTEE
ON THE
INTRODUCTION OF WATER.

Stone & Huse, Printers.

REPORT.

To the City Council :

THE Joint Special Committee of the City Council, appointed February 27, 1866, authorized and instructed to obtain full and correct estimates of the cost of introducing water into the city, under the Act of the Legislature, approved May 21, 1855, submit the following Report :

In entering upon the duty assigned them, your Committee were fully aware of the importance of the work committed to their charge. Municipal action on this subject dates back nearly to our organization as a city, and frequent attempts have been made to bring the enterprise to a successful issue ; but from various causes, which it is unnecessary to enumerate, these attempts have failed.

The first object of the Committee in the discharge of their duty, was to procure the services of a competent hydraulic engineer, whose experience should give assurance of correct estimates, and whose advice it would be safe to follow, as to the best means of accomplishing the contemplated work.

In this part of their work, your Committee were so fortunate as to secure the services of L. F. RICE, Esq., of Boston, a gentleman of large experience in his profession,

and of undoubted ability to perform the work desired in a most satisfactory manner.

Before proceeding to any estimate, it was necessary to settle somewhat definitely upon the points of supply and distribution. The Act referred to empowers the city to take the waters of Merrimack River, also any lands that may be necessary, within the limits of the city. It has generally been supposed that Fort Hill would be the proper location for a reservoir, and the supply of water be drawn from the river above the Pawtucket Falls. To this arrangement, on investigation, your Committee found obstacles which seemed to render this plan inexpedient. First — the conical formation of the hill is such that sufficient area of surface could not be had without greatly reducing the elevation. Second — the great distance between the points of supply and distribution would render the building of a conduit to convey the water to the base of the hill too expensive, as it must cross the city, and in some places through deep excavations.

School Street Hill was also examined, with a view to fitness for the location of a proper reservoir ; but the elevation is not sufficient to supply all parts of the city, or afford sufficient head for a proper supply for hydrants. This objection might have been obviated by the erection of a cylindrical tower to a proper height ; but this would have involved a continual working of the pumps to keep up the supply, which is neither safe nor economical.

After a careful consideration of the whole subject, your Committee were unanimous in the opinion that the most advantageous location for the construction of a suitable

reservoir is the high land in Centralville, east of Beacon Street, and north of Sixth Street. This location seems to be entirely adapted for the economical construction of an ample reservoir, and is wholly unoccupied, except for agricultural purposes.

As a matter of economy in the expenditure of power to raise the water to the reservoir, it is desirable that the engine and pumps should be located as near the receiving reservoir as practicable. This location would be near Bridge Street, at the foot of Sixth Street. To conduct the water to this point, two methods are open to us, either of which is entirely practicable. First, to take the water from above Pawtucket Falls and convey it by a conduit and pipes to the desired point, as shown by the plans of the Engineer, herewith submitted; or to take the water from *below* the Falls and convey it in like manner to near the same point, as shown by the plan referred to.

The first method, which is referred to in the Engineer's Report, marked A, has the advantage of the upper level of the water, consequently reducing the height necessary to raise the water to the reservoir about thirty-five feet less than second, Plan B, of the report of the Engineer.

It has been ascertained, by a careful estimate, that the interest on the cost of the necessary conduit and pipes to convey the water, as per Plan A, will exceed per annum the cost of raising the maximum amount of water the extra height required by Plan B. Your Committee are, therefore, unanimous in recommending that Plan B should be adopted.

An additional reason for adopting plan B, may be found in the fact, that while under the Act, the City have full power to take water from any point in the river, it is a question that cannot now be decided, whether any parties can in the event of very low water maintain a claim for damages for loss of the water so taken. By adopting the plan recommended, this controversy will be wholly avoided. The purity of the water of the Merrimack having been questioned, your Committee have caused an analysis to be made by A. A. Hayes, State Assayer, of water taken from above and below Pawtucket Falls, also from Beaver Brook, below Merrimack Woolen Mills. This report of the analysis is contained in an Appendix, marked respectively A, B, and C.

Your Committee deem it unnecessary to enlarge upon the very full report and estimates of the Engineer, which, we feel confident, will be perused with all the care its merits and the importance of the subject demands. From these estimates, which we are satisfied are sufficiently large to cover all possible contingencies, it will be seen that the entire expense of the proposed work will be \$739,941.46; to this sum is to be added the cost of land required, which will be \$8,000.00; making the entire outlay \$747,941.46.

It should be borne in mind that these estimates are made for works which will give an ample supply for fifty thousand inhabitants, and that as the annual cost of raising the water is for the maximum amount, of course with coal at present market price, the expense will for some years to come fall below the estimate.

The question will undoubtedly be asked, Will the receipts pay the interest on the investment and the working expenses?

It is not, perhaps, expedient or proper that your Committee should enter into any lengthened argument in answer to this question. We may, however, very properly say, that, judging from the experience of other cities, after a few years of use the receipts will be ample to meet the expenditures ; and if we consider the greater safety of property, the reduction of the expenses of our Fire Department, and above all the sanitary benefit which will result from the measure, we shall be amply compensated for the cost from the commencement. If the work is ever to be accomplished, your Committee are of opinion that no more favorable time than the present will be presented for years to come,—that the price of labor or material will not be greatly reduced for some years,—that a very large majority of our most prominent tax-paying citizens are desirous that the work should be commenced at once, and be completed without unnecessary delay.

These considerations influence us to recommend to the City Council to adopt immediately such measures as will secure the commencement of the work the present year. We, therefore, introduce the accompanying Resolution and recommend its passage.

Respectfully submitted,

J. G. PEABODY,	} <i>Committee.</i>
C. W. DODGE,	
J. L. SARGENT,	
BENJ. WALKER,	
E. C. RICE.	

R E P O R T

UPON THE PROPOSED

LOWELL WATER WORKS,

WITH ESTIMATES OF THE

COST OF CONSTRUCTION.

BY L. F. RICE, C. E.

WITH APPENDIX.

R E P O R T .

*To Hon. J. G. Peabody, Mayor,
and Members of the Water Committee of 1866 :*

GENTLEMEN :—In accordance with your desire, expressed on the 11th July, I have made such examinations and surveys as I deemed necessary for the purpose, and collected such information as was available, with a view to determine the best manner and the cost of constructing works for supplying the city of Lowell with water, and now have the honor to make the following Report :—

The authority upon which this enterprise is undertaken, is conferred in “an Act for supplying the City of Lowell with water ;” approved May 21st, 1855.

Section 1 of this Act, is as follows :—

“ The City of Lowell is hereby authorized to take, hold, and convey, into and through said city, from the Merrimack River, at any point thereof within said city that may be deemed expedient, sufficient water for the use of said city and the inhabitants thereof, for the extinguishment of fires, domestic and other purposes ; and may also take and hold, by purchase or otherwise, any lands or real estate within said city, necessary for laying and maintaining aqueducts or pipes, constructing or maintaining reservoirs, and such other works as may be deemed necessary or proper for raising, forcing, retaining, distributing, discharging and disposing of said water.”

It is desirable to first ascertain what *is* “ sufficient water for the use of said city and the inhabitants thereof.” To do this, an examination into the experience of other cities, is

the surest and best guide. The importance of a liberal supply is well expressed in a statement read before the Brooklyn Board of Water Commissioners, December 16th, 1858 : “ An abundant supply of pure water, coursing through the streets of a populous town, and a well organized plan of sewerage to drain it, are of the same value to its inhabitants as a supply of pure blood is to the human body, which, after vivifying its most remote organs by means of the arteries, carries off the impurities of the system, through the veins, to be again prepared for use by contact with the air.” The quantity of water per individual consumed in the various cities in this country varies very considerably. At the time of the construction of the older works, 30 gallons per day for each inhabitant, was considered an abundant supply. It certainly would be if the water was used with the same care as that laboriously drawn from wells or collected in cisterns, but it has been found that when it is easily obtained, not only is much more actually *used*, but large quantities are *wasted*.

In the city of New York, the Croton works were constructed with a view to furnish an ultimate supply of 35 gallons per day to each individual, but ten years after water was introduced into the city, the Croton Board announce that “ The daily delivery in the city for a large portion of the two years past, has been about 30,000,000 gallons ; often in the last year giving to each inhabitant in the water district (not more than 400,000) a daily supply of 90 gallons.”

In Boston, where, when the works were constructed, 30 gallons per head were considered ample, the actual consumption had increased in ten years to 73 gallons. In 1859, the Cochituate Water Board reported :—“ It seems as if we might now fairly conclude that the individual consumption had come to its maximum,—the variation in three years not exceeding one gallon ;” say 72 1-2 to 73 gallons.

But in 1860, referring to the above statement, the Board reported : — “ But the present year is a fearful example of the fallacy of such calculating. By the report of the Engineer, hereto annexed, it appears that the average daily consumption of water has been 17,238,000 gallons. By the census returns, it appears that the number of inhabitants is 177,902. This shows a consumption of 97 gallons for each individual ; an amount believed to be without parallel in the civilized world.”

The next year the consumption was still greater, and the following table shows the result for the last five years : —

1861.....	18,189,304	gallons daily ;	
1862.....	16,600,000	“	“
1863.....	16,238,000	“	“
1864.....	16,681,000	“	“
1865.....	12,662,000	“	“

In the Report for 1865, the Board remark “ it must be a source of general satisfaction to our fellow citizens to know that the daily average for the past year amounts to only 12,662,000 gallons, against 16,681,000 for the previous year, a reduction of over twenty-five per cent.”

Still it is evident that nothing less than 70 gallons per head can be safely calculated upon for that city.

In Philadelphia, in 1859, there was a daily consumption of 50 gallons per head, against 70 gallons in New York, and 72 1-2 in Boston.

In Montreal, the daily consumption per head, in 1865, was 40 gallons, and the works being run to their utmost capacity, great restrictions were placed upon the use of the water.

In Detroit, in 1860, the daily consumption was about 36 gallons per head.

In Jersey City, from 1859 to 1861 inclusive, there was an average daily consumption of about 60 gallons.

In Hamilton, Canada West, the estimate of the Engineer was based upon a supply of 50 gallons per head.

Sixty gallons per head per diem has been assumed by Mr. Kirkwood, (formerly Chief Engineer of the Brooklyn Water Works,) as the allowance for St. Louis.

In Charlestown the works are built to supply 60 gallons per head.

From New York and Boston, large quantities of water are furnished to the shipping and for various other purposes incident upon their position as seaports, and it is probably this fact which makes their consumption so much greater per head than that of inland cities.

I have therefore deemed it advisable to assume 60 gallons as a proper daily allowance per inhabitant, on which to base my estimates.

The present population of Lowell is estimated to be about 37,000. Taking into consideration its situation — its great interest being manufacturing, and depending mainly for its motive power upon the Merrimack River, nearly the whole power of which is now used — it is unlikely that this population will increase to above 50,000 for many years. I shall therefore propose to construct these works with a capacity of furnishing 60 standard gallons per day to each of 50,000 inhabitants, or 3,000,000 gallons.

After fixing the amount of the supply required, the next consideration is usually to determine the source from whence the supply is to be obtained. But by the Act quoted at the beginning of this Report, the water for supplying these works is required to be taken "from the Merrimack River, at any point thereof within the limits of said city" of Lowell. Even were this restriction removed, the Concord River, which is the only other available source of supply, passes for miles, with very sluggish current, through low swamps and meadows, which renders its water far inferior

in quality to that of the Merrimack. I have consequently confined my examinations to the latter stream.

The most desirable plan for introducing water into a city, is that by which it is brought by gravitation to the point from which it is to be distributed. This is impossible in the present instance, as the highest point of the river within the city limits is lower than the underpinning of the City Hall, and consequently than a large portion of the city.

The water must therefore be raised by artificial means to a distributing reservoir of sufficient altitude to command the higher portions of the city.

The proper location for the pumps depends, in a measure, upon that of this reservoir, as all engineering authorities agree in the opinion that the forcing mains through which the water is raised from the pumps to the reservoir, should be as short as possible.

Two localities only, in this vicinity, are of sufficient elevation, viz: Fort Hill and Dracut Heights or Christian Hill.

A brief examination suffices to show the ineligibility of the former. It is long and narrow with steep sides, making it impossible to construct a reservoir of sufficient size thereon, without cutting down the entire summit and making part of the embankment of enormous height. Its situation with reference to the city is not favorable to the convenient distribution of the water, and its distance from the Pawtucket Falls is also considerably greater than that of the rival hill on the Dracut side of the Merrimack. I refer to the Pawtucket Falls, because it is absolutely essential that the water, to possess even a reasonable degree of purity, should be taken from the river above where the tail-races of the mills, and the sewerage matter of the city empty into it. Christian Hill, with side slopes less abrupt, has near the summit a large area where the slope is very

moderate, and where any desirable altitude can be obtained for the reservoir. I propose locating the reservoir at the northeastern corner of Sixth and Beacon Streets. The natural surface of the ground at this point is about 132 feet above the underpinning of the City Hall, and rises gradually toward the northeast, so that we have a height from which the water will force itself considerably above any other natural or artificial elevations in the city, Fort Hill and one or two steeples only excepted.

This position determined upon, there are two available points at which the water may be taken from the river. I have made careful examinations of both, and prepared separate estimates of the costs and statements of the advantages of each.

A brick conduit is desirable wherever practicable, as by its use that of cast iron pipe is avoided, and a very considerable saving of expense effected thereby. Nor is this saving of cost gained at the expense of any desirable quality, but on the contrary. A pipe of reasonable diameter would require to be laid with a considerable fall, in order to furnish the head necessary to overcome the resistance of the pipe, and deliver the desired quantity of water. A brick conduit, being of much greater section, will pass the same quantity of water at a low velocity, and consequently require but little fall to furnish the head. A circular section is the most convenient for construction and for calculation of the flow. I have fixed the inner diameter at five feet, which, though larger than is actually necessary to conduct the supply of water, is but little more expensive than one of four feet diameter, while it enables the conduit to be readily entered for the purpose of examination or repair; I assume, as sufficient, a fall of one-tenth of a foot in one thousand feet, or 6 1-3 inches per mile.

When but partially filled with water, the flow through the conduit would be similar to that in an open canal. The formula for the discharge is therefore

$$Q = s \left(\sqrt{8975.414 \frac{p^3}{c}} - .1088946 \right),$$

taken from Bennett's translation of D'Aubisson's Treatise on Hydraulics, where

Q = cubic feet of water conveyed in one second,

s = area of water section, in square feet,

c = *wet perimeter*, in feet, or length of the circumference
of the conduit in actual contact with the water,

$p = \frac{D}{L}$, or ratio of the total fall to the total length.

If the fall of the conduit is $\frac{1}{10}$ foot in 1000 feet, $p = .0001$.

The foregoing formula shows that the conduit will discharge 3,015,060 standard gallons in 12 hours, when running half full; 4,729,733 gallons when running with a depth of 3 1-2 feet; 5,735,726 gallons when the depth is 4 feet; and 6,367,177 gallons when filled to a depth of 4 1-2 feet, or six inches from the top. To convey the whole daily supply required for these works, or 3,000,000 gallons, will therefore only require the conduit to run half full, and the velocity of the flow will be but about one foot per second.

The water may be raised to the reservoir either by water or steam power. Of these, the former is the more economical in its operation, but could only be secured in this case at such an increased expense of construction as would

render the project undesirable. This will be alluded to more particularly hereafter.

It remains, then, to elevate the water by steam power.

In Plan A, I propose to take the water from the river near the eastern side of the upper end of Pawtucket Canal. From a chamber of masonry built out into the stream sufficiently far to allow the water to be taken several feet below the surface, a brick conduit, of the dimensions determined in the preceding calculations, will follow the course of the Pawtucket Canal, at a distance from it varying from 20 to 100 feet, to the intersection of Western Avenue and Fletcher Street. Crossing Fletcher Street, it will continue along Dutton Street to the Western Canal. The conduit is to be eight inches in thickness, built of brick laid in hydraulic cement, and resting upon a bed of broken stone concrete. From a terminal chamber at this point, the water will pass in two thirty-inch iron pipes under the Western Canal to another similar chamber on the opposite side. These pipes have an aggregate section just equal to half that of the conduit, and the total length being less than 100 feet, the water would pass under the canal and into the conduit beyond, without appreciable loss of head. From this point it is proposed to continue the conduit of the same size, structure and rate of fall as before described, to the junction of Dutton and Merrimack Streets, where another terminal chamber will be constructed. From this chamber a thirty-six-inch iron pipe will pass under the Merrimack Canal, and through Merrimack and Bridge Streets to the Central Bridge. The pipe will be conveyed underneath the superstructure of the bridge and suspended from it, to the north side of the river, and then continue along Bridge Street to the corner of Sixth. The water must, of course, traverse this pipe with greater velocity than when in the conduit. A short calculation shows it to be about 1.46 foot per second. To cause this

increase of velocity, a greater rate of descent must be given to the pipe than to the conduit. The formula of the discharge of water through pipes, as given by D'Aubisson, is

$$Q = 38.436 \sqrt{\frac{H D^5}{L}} - .070862 D^2,$$

in which D is the diameter of the pipe. From this we have

$$H = \left[\frac{Q + .070862 D^2}{38.436} \right]^2 \times \frac{L}{D^5}$$

Taking $Q = 9.3$, which gives a delivery in twelve hours of 3,005,737 gallons, this formula gives $H = 1.1$ foot, which is the difference in elevation between the two ends of the pipe, necessary to produce the required discharge.

To the junction of Bridge and Sixth Streets the water will flow by gravitation, and here I propose to locate the pumping engines. These will force the water through a thirty-inch iron pipe up Sixth Street to the reservoir at the corner of Beacon Street.

Plan B contemplates taking the water from the river nearly opposite the Lawrence Mills, between the island and the north bank. This is above the tail-races of all the mills, and the outlets of all the sewers, so as to be free from impurities from those sources. To make this desideratum more certain, an earthen embankment may, if necessary, be built from the lower end of the island to the north bank, which will prevent any back-water at that point. Water taken from the artificial bay thus formed can contain no impurities except what it brings with it from above.

From the lower end of this bay, a brick conduit, similar in size and structure to that proposed in Plan A, will be built, as nearly straight as the nature of the ground will admit, consistent with a reasonable economy of construction, to a point about seven hundred feet south-westerly from the intersection of Bridge and Sixth Streets. It is proposed to locate the pumping engines here, and the water will be forced through a thirty-inch iron pipe, laid in a straight line to the intersection of Bridge and Sixth Streets, and thence up Sixth Street to the reservoir at the corner of Beacon Street.

It has been urged in objection to this plan, that Beaver Brook empties into the Merrimack a short distance above the upper end of the island, and that the quality of the supply would consequently be impaired. A sample of the water was therefore taken from Beaver Brook, below the Merrimack Mills, on the 17th of July, and submitted to Dr. A. A. Hayes, State Assayer, for analysis.

Another sample was taken from the river between the island and the north bank, on the 10th of August.

The analysis of these samples, (see Appendix B and C,) show that no noxious matter is contained in the water either of the river or of Beaver Brook; that *the water of Beaver Brook is equal to the Cochituate*, the analysis of which affords from 3 to 3 1-2 grains of solid matter per gallon; and that the water taken from the river below the mouth of Beaver Brook, is but little inferior in quality to that taken above Pawtucket Falls, (see Appendix A.) and fully equal to that from Loch Katrine in Scotland, the purest now in use for public supply.

Apprehensions are also expressed lest the supply from this source should prove insufficient during the protracted seasons of drought, during which little or no water passes over the Pawtucket dam. That portion of the bed of the

river lying between the foot of Pawtucket Falls, Beaver Brook and the head of the island, covers an area exceeding 50 acres. Assuming this to be covered to an average depth of but eight feet, it would form a natural reservoir containing 17,424,000 cubic feet, or 130,340,571 standard gallons. This would be amply sufficient for the supply of the city for six weeks, even with the maximum consumption assumed in this estimate, while there are not more than two months in any year, during which there is not some flow over the dam daily, and, of course, whenever the canals are drawn off, the entire volume usually passing through them is received into this reservoir. In addition to this, there is the discharge from Beaver Brook, which is sufficient to carry the Merrimack Mills, and may safely be assumed at two or three million gallons per day. I propose to construct the Distributing Reservoir of sufficient capacity to contain nearly three weeks' supply for the city, and as this could be filled before the dry season set in, I feel assured that no fears need be entertained of a scarcity of water.

PUMPING ENGINES.

It is essential that the operation of pumping shall be as economical as possible, since this will be the most important item in the running expenses of the works. The amount of coal consumed in the pumping, varies in proportion to the height to which the water is to be raised, as does also the size and power, and consequent cost of the engines. The other expenses, such as cost of attendance, oil, and other stores, do not increase in the same proportion, being but little more for high than for low lifts. As previously mentioned, Plan B will require a longer force main, and with a greater lift, than Plan A. In Plan A, the main will be about 2,100

feet long, with a total lift of 162 feet, and in Plan B, 2,700 feet long, with 197 feet lift.

I propose to employ two engines, as providing better against accident, and working more economically than a single one; each engine to be capable of raising 1,500,000 gallons into the reservoir in twelve hours.

The entire supply of 3,000,000 gallons could therefore be forced into the reservoir in twelve hours, if both engines worked, while, in case of accident to one, the other could perform the entire duty by running twenty-four hours. The following calculations will show the power required for the engines by the two plans, A and B:

Delivery to reservoir for one engine in one minute $= \frac{1,500,000}{720} = 2083$ gallons, $= 278.5$ cub. feet, $= 17406$ lbs., the delivery in one second, or Q, being 4.64 cubic feet.

The formula for the discharge through pipes is

$$Q = 36.769 \sqrt{\frac{H D^5}{L}}, \text{ whence } H = \frac{Q^2 L}{901.3 D^5}$$

where the numerical co-efficient has been diminished one-third to allow for incrustations in the pipe.

For a thirty-inch pipe we should therefore have

$$H = \frac{21.5296}{901.3 \times 97.66} \times L = .0002446 L = \text{head due resistance of pipe.}$$

Then for Plan A, where lift $= 162$ feet and length of main $= 2,100$ feet, we should have $H = .514$ foot, giving for the work to be done by each engine,

$$\text{Water} = 17406 \times 162 = 2,819,772 \text{ f't lbs. per minute.}$$

$$\text{Friction of Main} = 17406 \times .514 = 8,947 \text{ " " " "}$$

$$\text{" " Engine} = 20 \text{ per cent.} = 563,954 \text{ " " " "}$$

$$\text{Total work} = 3,392,673 \text{ " " " "}$$

$$\text{Then } \frac{3,392,673}{33,000} = 102.8 = \text{Horse Power of each engine for Plan A.}$$

For Plan B, where lift = 197 feet and length of main = 2,700 feet, we have H = .66 foot, giving for the work to be done by each engine,

$$\text{Water} = 17406 \times 197 = 3,428,982 \text{ f't lbs. per minute.}$$

$$\text{Friction of Main} = 17406 \times .66 = 11,488 \text{ " " " "}$$

$$\text{" " Engine} = 20 \text{ per cent.} = 685,796 \text{ " " " "}$$

$$\text{Total work} = 4,126,266 \text{ " " " "}$$

$$\text{Then } \frac{4,126,266}{33,000} = 125. = \text{Horse Power of each engine for Plan B.}$$

The style of pumping engine to be used is a subject for serious consideration. Most of the pumping for water works in this country, and indeed in other countries, where steam power is used, is done by the "Cornish Engine," or a modification of it. This engine was first used for freeing mines from the water which rendered their operation expensive and dangerous, and so effective and economical is its action, that mines which had been abandoned on account of the rapid influx and accumulation of water, have been drained and their working rendered profitable.

The steam is applied only upon one side of the piston, and the pump rod is thus raised.

The weight of this, on the removal of the steam pressure, forces the water from the pump cylinder. It is a condensing engine, using steam by expansion and in a large cylinder, while the water cylinder is comparatively small. In both cylinders the motion of the piston is quite slow, and the stroke long.

In the modification of this engine used for water works, where there can be no long and heavy pump rod, the effect is produced by loading the pump rod to the required extent.

By many engineers, the "Cornish" is deemed the only pumping engine suitable for water works. It is used to supply the works at Jersey City, Detroit, Cincinnati, Buffalo, Spring Garden and 24th Ward (Philadelphia), Cleveland, and various other places in this country.

The "*duty*" of an engine is the *weight of water* raised *one foot* by a given quantity of fuel, sometimes taken at 100 lbs., but in the following discussion at *one lb.* The "Cornish" engine has always shown a higher "*duty*" than any other, but its action being intermittent, great care and watchfulness is requisite in running it, to guard against danger from the concussions and irregularities of motion to which it is liable.

The engines of the Brooklyn Water Works are double-acting beam engines, of large dimensions. A pump is attached to each end of the beam, one of them being situated under the steam cylinder, and worked by the same piston rod, which is extended through its bottom. The lower pump delivers through the other, giving a nearly constant flow, which prevents, in a measure, the danger incurred in the use of the "Cornish" engine, by the constant starting and stopping of the water column.

In Cambridge, Savannah, and Charlestown, are used the "Worthington" engines; in the latter place, the variety known as the "Worthington Duplex" Pumping Engine.

To quote from the Report of the Charlestown Chief Engineer, in 1864 : — “ These are direct acting horizontal engines, arranged in pairs, the valves of one being opened by motion from the other, so regulated that before one engine has ceased its stroke, that of the other has begun. The steam is used expansively, passing from the high into a low pressure cylinder, and expanding through the stroke, the steam piston rod connecting directly with the pump cylinders. The water is discharged from the pumps to a delivery chamber at the end of the force main, and passes, owing to the arrangement for continuous motion, in a constant stream, without any concussion or slamming of valves.”

Previous to the construction of the Charlestown engines, it was generally believed that although this style of engine showed an admirable “ duty,” yet the principle was inapplicable upon a large scale. The performance of the Charlestown engines show that this belief was erroneous, and their duty, as recorded, is superior to that of any other pumping engine in the country.

The construction of the Worthington engine is such as not to require massive and expensive foundations, for being extremely compact, and working horizontally, they require but little more than sufficient to support their weight ; and it is stated that the entire cost of the Charlestown engines and pumps was less than that of the foundations of the engines and pumps, of less capacity, used in Jersey City.

The following table, compiled from various Reports in my possession, gives the “ duty ” of several pumping engines in this country and Europe.

The records of “ duty ” here shown are among the best. Numerous instances might be cited where the “ duty ” was less than 200,000.

From this table it will be seen that the "Worthington Duplex" gives the best "duty" of any engine recorded in this country.

The Mystic (Charlestown) Water Board report, January, 1866:—"Should they (the second pair of engines) prove equal to the first pair, which upon a trial in November last were found to exceed the requirements of the contract and guarantee of Mr. Worthington, the builder, we think it will be safe to say that our city will have the best pumping engines in the country."

A personal inspection of the performance of this engine confirms the impression of its efficiency formed from the various reports received. I recommend that this kind of engine be adopted for these works.

In my estimate I have placed the cost considerably higher than that of the Charlestown engines, which are of about the required capacity, but the fluctuations in the prices of materials render it impossible to fix the price with accuracy. I have assumed the cost of the engine house as about that of the one at Charlestown.

I should state before passing from this subject, that in a letter lately received from Mr. Lowry, of Pittsburg, Penn., the builder of the hydrants recommended hereafter, he claims to have recently "completed, for the Monongahela Water Company, an engine on an entirely new principle, which exceeds anything heretofore in use, in economy of construction and fuel. It costs only about one-half the price of the present high pressure engines, and with the same quantity of fuel raises double the water of any engine in the western country."

It may be well to examine Mr. Lowry's engine before contracting with any builder.

In order to elevate the supply by water power, it would be desirable to take the water from the river, at a point and

in a manner similar to that recommended in Plan B. The conduit, however, instead of curving toward the engine house before reaching Bridge Street, would continue down River Street, cross Bridge, and follow the course of the river to the foot of Hunt's Falls, from which the power would have to be derived. Here the pump house would be located. The total length of the conduit would be about 7,600 feet.

To obtain the power, a canal would have to be constructed from the head to the foot of the Falls, a distance of about 3,100 feet. As the bank for this whole distance is quite high and steep, the canal would require very heavy excavation, probably including considerable rock work, or to be built up from the bed of the river itself, requiring solid and expensive retaining walls of masonry. The amount of fall being so small, these walls would have to be high enough to make the whole fall available at high as well as at low water, and, in any event, the high spring freshets would so completely flood the works as to render a temporary suspension of their operations necessary.

The interest on the increased expense of this heavy work would nearly if not quite equal the yearly expense of coal for pumping by steam power, while the use of Hunt's Falls would be liable to involve the city in litigation with the Locks and Canals Company.

I therefore, without submitting any detailed estimate of the cost, believe that the plan of using water power is not feasible in this case.

FORCE MAIN.

From the engines, the water will pass to the reservoir in a thirty-inch main. A single main of this size has been

adopted rather than two smaller ones, as the liability to accident, in so short a distance, is small, and the size of the proposed reservoir such as to admit of any needed repairs being made upon the main without interfering with the city supply, while the resistance to the passage of the water, and consequent work of the engines, would be considerably increased in pipes of smaller section.

RESERVOIR AND APPURTENANCES.

I propose to construct the reservoir of earth, in two compartments of equal size, with facilities for drawing the water from either or both of them. This will admit of one compartment being used as a settling reservoir while the other is being drawn from, at times when freshets render the water turbid, or of one being used to supply the city while the other is being drawn off for examination or repair. These compartments will be separated by an embankment twenty feet high, so that when filled to that depth the reservoir will have the appearance of one large basin.

It is proposed to build the banks twenty feet thick at the top, with an exterior and interior slope of 1 1-2 horizontal to 1 vertical, and with a height of 24 feet above the bottom of the reservoir, or four feet above the surface when filled to the maximum depth proposed. With this depth, the surface will be 155.6 feet above the underpinning of the City Hall. The reservoir, when full, will have a water surface area of 670 by 560 feet, and, when filled to a depth of 20 feet, will contain about 49,000,000 standard gallons, or somewhat over seventeen days' supply when the full quantity estimated for is consumed. This will admit of thorough repairs being made upon the engines, conduit, or force mains whenever necessary, without limiting the city supply.

The interior slopes of the reservoir are to be covered with a layer of puddling two feet in thickness, and upon this a slope wall of stone, 15 inches in thickness, laid in cement, the slope walls being finished with a stone coping. The bottom will be covered with two feet of puddling, and upon this four inches of broken stone concrete.

The force main will enter an influx chamber of stone and brick masonry, from which two thirty-inch pipes will be laid within the banks to the bottom of each compartment.

Under the mouth of each of these pipes, a stone apron will prevent the entering water from washing up the bottom of the reservoir.

From efflux chambers of masonry, located at the intersection of the division and main embankments, two thirty-inch pipes will pass under the influx chamber, uniting within the gate house, and connecting with the distributing mains.

Another thirty-inch pipe will connect the influx chamber with the distributing mains, so that in case it be desired to empty both compartments of the reservoir, the water can pass directly from the force to the distributing mains, thus rendering the supply temporarily independent of the reservoir.

DISTRIBUTION.

It is evident that it would be false economy to provide only for the present wants of the people. As the population increases, so will the consumption of water, due not only to an increase in the number of takers, but also in the quantity used by each; experience having shown that the number of water fixtures increases more rapidly than the number of takers. The works should therefore be constructed with a view to supply this growing demand.

It will add but little to the first cost to adopt a design capable of enlargement or extension sufficient to supply any

future population, while if the works are built upon a system adapted to a small population only, future additions would be both expensive and unsatisfactory. In the older cities much trouble has been experienced on this account.

Thus the Chief Engineer of the Philadelphia Water Department reports, February, 1866 : — “ The several corporations which now form the consolidated city, had each a system of distribution arranged, without reference to the others. In consolidating the works, this was found a great impediment to a satisfactory distribution. * * *

* * The connecting main authorized to be laid between the Corinthian Avenue and the Kensington reservoirs, will do much toward perfecting the distribution, but several additional mains will be necessary. It has been the practice of this and other cities to lay service mains of too small capacity. The demand for water has increased so much, that at the present time the mains are required to be at least three times the size that would have been sufficient in 1830.

* * * * * This increased consumption, and the introduction of steam fire apparatus, which require a much greater supply of water than was necessary for the hand engines, make additional feeding mains necessary in almost every section of the city.”

The Cincinnati Report for 1854 says : — “ The want of large mains has been felt in all the large cities of the Union, possessing water works ; and the laying down of small pipe is a mistake, not only made in Cincinnati, but every other place, and seems to have been done in each instance to stretch the pipe out to the greatest extent of the means possessed.”

The Report for 1860, of the Detroit Water Commissioners, remarks : — “ In the construction of water works for cities, their size and capacity are never over estimated.”

These considerations have induced me to propose a system of distribution, which not only provides for an unusually ample delivery of water at first, but will admit of extension as the increasing population covers more territory.

From the reservoir two mains will convey the supply to the city. One, of 16 inches diameter, will pass down Sixth and Bridge Streets, and cross the river under the Central Bridge, as proposed for the thirty-six-inch main from the conduit in Plan A. Thence it will continue along Bridge and Merrimack Streets, passing over the Eastern and Merrimack Canals, to Worthen Street. From this point twelve-inch mains radiate along Merrimack and Worthen Streets. From this sixteen-inch main and its connections are supplied all that part of the city lying north of the Pawtucket Canal.

The other main from the reservoir, 20 inches in diameter, passes down Sixth, Myrtle, Third and Bridge Streets, crosses the river at Central Bridge, and continues through Bridge, Prescott and Central (passing over the Pawtucket Canal) to Gorham Street. From this point twelve-inch mains pass along Middlesex, Gorham and Central Streets, from which are supplied that part of the city between the Concord River and the Pawtucket Canal, and another twelve-inch main is to be laid through Church Street and over Concord River for the supply of Belvidere.

At Merrimack Street, it is proposed to connect the twenty and sixteen-inch mains, so that in case of accident to one, the entire city could be supplied from the other. To guard still further against any probable interruption of the supply, the various sections of the city are also connected by mains crossing the Concord River at Merrimack Street, and the Pawtucket Canal at Fletcher Street. The details of the proposed distribution are shown in the accompanying map.

The practice of the Brooklyn Water Works has been followed in using no mains of less than six inches diameter. This will always ensure an ample flow from hydrants, when large quantities of water are required for extinguishing fires.

In a report to the Croton Aqueduct Board, the Engineer states: "As far as my own personal experience is concerned, the use of pipes of even *four inches* diameter is objectionable with Croton water, and with that from other rivers. I have known their capacity become speedily and greatly reduced by what are called 'blisters.' The use of any pipe for distribution of less diameter than six inches, is not now allowed by the Croton Aqueduct Board."

Pipes of the proposed size being already laid in Merrimack Street, from Worthen to a little beyond Cabot Street, and in Cabot, Adams, and Cushing Streets, which will probably be serviceable for some years to come, the amount of such pipe may be deducted in making the estimate of the quantity required for the distribution.

The material used in the construction of both the supply and distribution pipes requires careful consideration. Dr. Hayes' analysis of the Merrimack River water, (see Appendix A,) after mentioning that it contains an unusual proportion of oxygen, states that "when the water is brought into contact with the common metals, the rapidity of its action in oxydating and corroding them, must be greatly increased by the presence of oxygen in a fluid state. * * *

* * * * * Thus it dissolves the ores of iron naturally and becomes colored, and it attacks cast or ductile iron, corroding and dissolving it, whatever may be its form.

* * * * * Below 80° F. or above 150° F., this action on metals is modified: at the natural temperatures the corrosion takes place slowly."

This corrosive action of river and other soft water upon iron pipes, has been a source of trouble wherever that ma-

terial has been used to conduct the water ; and many and costly investigations and experiments have been made, with a view to determine the nature of this action and devise means for its prevention. In his report for 1852 to the Cochituate Water Board, E. S. Chesborough, Esq., the City Engineer, remarks that —

“The rapidity with which the interior surfaces of some of the pipes have become covered with *tubercles* or rust, has excited a great deal of interest, and has been the subject of much observation ; but the cause of such a wide difference in the growth of these tubercles in different pipes and in different places, does not appear to be clearly understood. All the large pipes that have been opened have been partially or entirely covered on their inner surfaces ; some with detached tubercles, varying from a half to two and a half inches base, with a depth or thickness in the middle of from one-quarter to three-quarters of an inch ; and some entirely, to an average depth of half an inch, with a rough coating, as if the bases of the tubercles had crowded together. The smaller pipes all exhibit some action of this kind, but generally to a less extent, as regards thickness, than the larger ones. In one case, however, a four-inch pipe was found covered to a thickness of about one inch. This was in that part of Myrtle Street which was formerly called Zone Street, where the entrance to a service pipe was entirely stopped by rust. Wrought iron pipes fill much more rapidly than cast iron ones ; and in several instances, service pipe made of that metal, have, during the last year, become so obstructed as to be almost or quite useless.

The Jamaica Aqueduct pipe, which was originally 10 inches in diameter, has been, in some cases, reduced to 8, by tubercles, which, however, are different in form from those in the Cochituate pipes.”

Perhaps the most complete investigation into this matter was made by Mr. Robert Mallett, at the instance of the *British Association of Science*. His experiments were continued from 1838 to 1843. He found that *any part of iron, cast or wrought, corrodes when exposed to the action of water holding air in combination*. He estimates that *from three-tenths to four-tenths of an inch in depth, of cast iron one inch thick, and about six-tenths of an inch of wrought iron, will be destroyed in a century in clear water*. To determine

means of preventing this corrosion, by the application of a coating to the inner surface of the pipes, was one object of Mr. Mallett's experiments, and of those of other investigators.

Numerous substances have been proposed, giving more or less satisfactory results, and varying greatly in their cost of preparation and application, as well as in their efficiency. Boiled linseed oil, applied at a high pressure, has been used; also hydraulic cement, and various preparations of which bitumen and coal tar are the bases. The interiors of the pipes are sometimes covered with an enamel.

For the Brooklyn Water Works, after a careful examination of the claims of the various processes for producing the desired result, a preparation known as "Dr. Smith's Patent Varnish," was adopted, and their pipes are now covered with this substance, both inside and out.

A pipe is also manufactured in this country from wrought iron, lined with cement, of which very good reports are given. It has been laid in many places, and has stood the test of several years; in some instances with a pressure considerably exceeding that which will exist here. It is made of sheet iron, of any required thickness, formed by machinery and firmly riveted into pipe of any needed diameter, and of sufficient strength to resist any head of water to which it may be subjected. It is also lined by machinery, with mortar made of Rosendale hydraulic cement, and laid in a bed of the same material, the entire outside being perfectly covered with the mortar. It is claimed that the cement soon becomes hard like stone, and perfectly protects the metal from the action of air or water—consequently preventing corrosion. In Watertown and Avon Spa, N. Y.; Scranton, Pa., and New Britain, Birmingham, and Danbury, Conn., it is subjected to a pressure arising from a head of from 200 to 247 feet.

A portion of this pipe, laid in 1855, was taken up in 1857 and examined by Mr. Samuel McElroy, Assistant Engineer, Brooklyn Water Works, and "no traces of oxydation whatever" were found.

The officers of the New Haven Water Company "consider this pipe much superior to cast iron as a water conductor."

The Water Commissioner for Worcester says:—"For all sizes of pipe up to twelve inches in diameter, when resting upon a solid, compact soil, there is as much certainty of success with this pipe, as with cast iron."

In Charlestown, which is, I think, the largest city where this pipe alone is used, both verbal and printed statements refer to it in the highest terms of commendation.

I am informed that the city of Hartford has contracted for four miles of twenty-inch pipe of this kind.

In view of these reports, and in consideration of the fact that this pipe costs twenty per cent. less than cast iron pipes of the same capacity, I recommend that it be adopted wherever the distribution requires pipes of twelve inches diameter or less.

More information may be received before these works are commenced, which will show that this material may be safely used for the larger mains, — but at present, I prefer to recommend that all pipes exceeding twelve inches in diameter, be made of cast iron, and coated with Dr. Smith's patent varnish.

HOUSE SERVICES.

To avoid the necessity of tapping the mains after they are laid, it is recommended that service pipes be laid from them, either to the sidewalk line, or so as to enter the walls of the houses. This, though considerably increasing the

first cost of the works, will decrease the liability to leaks in the mains incident to tapping them by unauthorized or unskillful persons, and will, as shown by the experience of Boston, Charlestown, and other cities, cause a more general use of the water, and consequently produce a larger income.

Reference to the analysis of Dr. Hayes, shows "that risk to public and private health will result from the use of lead conduits or service pipes for conveying that portion of this water which is to form part of food, or be consumed as a beverage."

A pipe of block tin, enclosed in one of lead, or, as it is termed, "tin-lined lead pipe," is claimed to be unacted upon by the water.

Glass service pipes, and others of tinned or galvanized iron, and iron lined with glass, cement, &c., are used to some extent.

I shall not, therefore, recommend any particular kind of pipe, but base my estimate upon lead, leaving it for later and less hurried investigation to determine its best substitute.

HYDRANTS.

The fire hydrants are perhaps the most important of all the appurtenances of a system of distribution, and as there are several varieties in use in different parts of the country, it is sound policy to examine into their relative merits before adopting any.

The desiderata to be sought are efficiency, (or capacity of affording any required supply of water for the extinguishment of fires,) and capability of maintaining such efficiency.

The hydrants in general use are the "post" hydrant, of which there are several kinds, differing mainly in the valve arrangement, and the "flush" hydrant. The "post"

hydrants stand with their nozzles above the surface of the ground, and are enclosed in wood or iron boxes. The "flush" hydrants have their nozzles below the surface of the ground, and are usually covered with an iron plate.

Both kinds are usually located on the sidewalk of a street, and are connected with the mains by branch pipes ranging from three to four inches in diameter. The "post" hydrant is rather more convenient to use, but is much more liable, on account of its great exposure, to freeze; indeed in a report of an Examining Board of Hydraulic Engineers, made to the Commissioners of the Brooklyn Water Works in 1858, it appears to be a cause for congratulation that "wooden instead of iron cases have been adopted," because, in addition to its being a much slower conductor of heat and cold than iron, "from its increased size over the ordinary iron case, it admits of straw or other non-conducting substances being packed around the hydrant," and "a ready method of thawing is always at hand, namely, setting fire to the contained straw packing, and, if necessary, the wooden case itself." Now, as hydrant boxes are a somewhat expensive article of fuel, the "flush" hydrants, which are much less exposed, and consequently less liable to freeze, are perhaps the more desirable form.

In Philadelphia, where several forms of "post" hydrant are used, the Chief Engineer of the Water Department says, in his report for 1865:—"Every winter some of the plugs are frozen, notwithstanding the care and attention bestowed upon them."

A cause of complaint, common to both the "post" and "flush" hydrants, and incident to their construction and location with reference to the mains, is the feeble flow when large quantities of water are desired. In the Report of the Cochituate Water Board for 1860, it is remarked that "it would be a great improvement to connect the hydrants

directly with the main pipes. * * * In case of fire, the steam fire engines require a larger supply of water than the small hydrants can deliver for their use."

The report, already quoted from, of the Chief Engineer of the Philadelphia Water Department, also alludes to this trouble: "When a number of steamers are collected near a fire, they exhaust the capacity of the mains, and some of them find it impossible to secure a supply of water."

In a report of C. L. Stevenson, Esq., Chief Engineer of the Charlestown Water Works, upon a system of fire hydrants, he says:—

"The sizes most used are 3 inches diameter, $2\frac{1}{4}$ inch nozzle, connected by 4 inch pipes with the street main. One inch of this 3 inch interior space is taken up by the valve rod through the center, reducing the actual water way to six square inches, subject to $12\frac{1}{2}$ square inches of frictional surface. To supply steam fire engines, a taper pipe, enlarging to the size of the suction hose, is used. It can hardly fail to strike one

* * * * * that a more ingenious system of throttling could scarcely be devised. * * * The

hydrant pipe, running off at right angles to the street main, contains dead water, or water without motion, except when the hydrant is in use; and we are all only too well aware of the amount of packing and contrivances now required to keep our hydrants from freezing in cold weather. * * * As now located, 'flush'

hydrants require a branch in the main pipe, from ten to thirty feet of branch pipe, (which, from motives of economy, is always small in size), and the hydrant bend, each helping to reduce the quantity of water the hydrant can deliver. * * *

It is evident that by placing the hydrant directly over the main in the street, we avoid all of these arrangements which are only hurtful in their effects. While the capacity will thus be increased enormously, freezing will be rendered impossible, as the water in the main is always in motion."

Entertaining these views, the attention of Mr. Stevenson was called to a hydrant invented by Mr. J. L. Lowry, of Pittsburg, Pa. Of this he says:

"By an ingenious arrangement he (Mr. Lowry) combines with the hydrant one or more stop-gates, as may be required, for shutting off, if

desired, the water in the mains: thus making a combined stop-cock and hydrant. This hydrant is usually placed at the intersection of the lines of water-pipes, taking the place of the ordinary branch. It will thus be seen that the supply to the hydrant is equal to the full capacity of as many mains as it intersects. For example, a four-way 6 inch hydrant has, to supply it, the four 6 inch pipes combined, or an area of 113 square inches. The present hydrants have supply from $12\frac{1}{2}$ inches area.

The hydrant, when not in use, is covered with an ordinary stop-cock cover, flush with the level of the street. When in use, a detachable hose branch, having four, six, or eight attachments, as may be desired, carried by each engine or hose company, takes the place of the cover; being readily fitted to the hydrant by one or two turns, the threads of the screw being slightly turned off at the end, so that one slips readily into the other.

The hose attachments are separate and distinct from each other; so that one or eight engines can be supplied at the same time, and let on or shut off the water without interfering, every opening having a separate slide gate or cut-off. An ordinary turnkey, passing through the head of the hose branch, opens or shuts the hydrant valve which supplies the whole eight attachments.

With a supply of water so vastly in excess of the capacity of the hydrant, it is evident that each of these is equivalent to eight ordinary hydrants;—and if we suppose a fire to occur in a given locality, eight of the present hydrants would be required to supply the same quantity of water. The advantages arising from such an excess of supply from the mains to the hydrant were so well shown in a trial made in Boston in 1863, that a brief account thereof is pertinent.

After an exhibition of the powers of this hydrant in Brooklyn, I requested Mr. Lowry to send one to us as a sample, and if possible for trial. By the courtesy of the Boston Water Board and the Superintendent of the Eastern Division of the Water Works, every facility was afforded for a fair trial of its merits. The hydrant, a four-way six-inch, was located in Winthrop Place, near Franklin Street, at the intersection of two six-inch pipes, a three-way six-inch branch being taken out to admit of its introduction. The spare end of the hydrant was closed by shutting the gate therein. The delivery was therefore such as could be obtained from eighty-five square inches of pipe area, lessened by such accretions as had taken place in the iron; so that the actual effective area would probably not exceed seventy-five square inches. To this hydrant four of the most powerful of the steam fire engines in the city were attached by 4 inch couplings. The indicated pressure on the water gauge, before starting the engines, was thirty-five pounds. The engines were fired

simultaneously, and at the end of twelve minutes were throwing nine powerful streams of water, subsequently increased to thirteen. With the nine streams the pressure on the water gauge was thirty-two pounds, and with the thirteen streams was reduced to thirty pounds; thus, of course, showing an excess of pressure from the main of that amount.

This result, so contrary to general expectation, was most satisfactory in showing the advantage of tapping the mains at their junctions. Upon the line of 6 inch pipes were located several hydrants of the usual style. To one of these one steam fire engine was attached. When throwing two streams the effect of exhaustion of the hydrant was noticeable; and the interruption to the stream, as shown by the air-spaces, denoted that the engine was drafting from the main. * * * *

The combination, when desired, of stop-cocks with this hydrant, is a feature possessing very considerable merit; enabling us to shut off shorter sections of the city pipes in case of accident or for repairs, while the additional cost of these cocks is comparatively slight. * * *

* * * To sum up the advantages possessed by this system of hydrant, we have:—

First. Economy in cost and maintenance.

Second. Simplicity and non-liability to derangement.

Third. The enormous volume of water afforded if desired.

Fourth. The ability to supply one or eight engines independently.

Fifth. The saving in hose and consequent decrease in friction, equal in the Brooklyn trial to eighty-seven per cent. increase of water delivery.

Sixth. It cannot freeze.

Seventh. Doing away with the branches and branch pipes to side-walks, and with stop-gate boxes and covers.”

After a thorough investigation of this hydrant, Mr. Stevenson adopted it for Charlestown. It had then stood a test of four years in Pittsburg, Penn.

The Charlestown works have in use one hundred and eleven Lowry hydrants.

The last report of the Mystic (Charlestown) Water Board says:—“A year’s experience has fully demonstrated the success of these hydrants.”

The report of the Cochituate Water Board, for 1865, states that “on the 18th of last October, His Honor Mayor

Lincoln, with the members of the Water Board, City Engineer, and the Superintendents of the Western and Eastern Divisions, by the invitation of the Water Board of the city of Charlestown, visited the water works belonging to that city. We witnessed a very satisfactory trial of the "Lowry hydrant," playing five streams to a height of fifty or sixty feet."

The foregoing and other evidence having demonstrated the efficiency of these hydrants, and shown that they are the most perfect arrangement now in use for the extinguishment of fires, I recommend that about one hundred of them be procured, to be located as shown on the accompanying plan of the distribution, and that common hydrants be used in those parts of the city least exposed to danger from fire. There are now in use seventy-six common hydrants, which could be retained under the new system, rendering it necessary to provide but about thirty additional ones. I have made my estimate accordingly.

About two hundred stop-cocks of various sizes, will be required, in order to shut off such portions of the mains as may from time to time require repairs. As many of these may be used in connection with the Lowry hydrants, I have deemed it unnecessary to fix any particular locations for them upon the plans accompanying this report.

It will be seen from the plans that I have not extended the distribution system to the various corporations. This is because, having means of supplying themselves by their force pumps, it is not probable that they will take water from the proposed works till experience shall show that it can be done cheaper than they can supply themselves. Whenever it is desirable, connection can readily be made between the proposed works and the pipes belonging to the corporations.

I have also omitted the land damages from my estimate, as being a matter upon which the members of the Committee are much more competent to form an estimate than a stranger could possibly be.

ESTIMATE OF THE COST OF THE PROPOSED WORKS.

DIVISION I. FROM THE MERRIMACK RIVER TO THE RESERVOIR.

PLAN A.

Bulk-head of Aqueduct (at River).

Preparing foundations, &c.,.....		\$500.00	
Concrete.....	10 c. yds. a	\$6.00..	60.00
Rubble masonry,.....	100 " a	7.00..	700.00
Rough Ashlar masonry,.....	18 " a	15.00..	270.00
Brick masonry,.....	5 " a	11.75..	58.75
Brick building over chamber,.....			300.00
Metal gates, screens, &c.,.....			500.00
		—————	\$2,388.75

Conduit from Bulk-head to Western Canal.

Earth excavation and re-			
filling,.....	28,075 c. yds. a	.35..	\$ 9,826.25
Rock do. do.	1,374 " a	3.00..	4,122.00
Brick masonry,.....	2,637 " a	11.75..	30,984.75
Concrete,.....	1,556 " a	6.00..	9,336.00
		—————	\$4,269.00

Pipe Chamber.

Preparing foundations,.....		\$ 50.00	
Concrete,.....	4 c. yds. a	6.00..	24.00
Brick masonry,.....	28 " a	11.75..	329.00
		—————	403.00

Pipes under Western Canal.

200 ft. 30-inch iron pipe,	a 10.30..	\$2,060.00	
Laying same,.....		300.00	
		—————	2,360.00
Amount carried forward,.....			\$59,420.75

Amount brought forward,\$59,420.75

Pipe Chamber.

As before, 403.00

Conduit from Western Canal to Merrimack St.

Earth excavation and

back-filling,.....6,667 c. yds. *a* .35..\$ 2,333.45

Rock do. do..... 311 “ *a* 3.00.. 933.00

Brick masonry,..... 879 “ *a* 11.75.. 10,328.25

Concrete,..... 519 “ *a* 6.00.. 3,114.00

16,708.70

Pipe Chamber.

As before, 403.00

Passing under Merrimack Canal.

Laying pipe, 400.00

Iron Main to Engine House.

4,000 feet 36-inch pipe, laid, *a* \$8.46 33,840.00

Engine House, Chimney, &c.

Building complete, 25,000.00

Engines.

Two each of 103 horse-power, including excavation and masonry for foundations, setting up, &c.,... *a* \$45,000.00 90,000.00

Force Main.

2,100 feet 30-inch cast iron pipe, laid,..... *a* \$14.15 29,715.00

Engineering, Contingencies, and Omissions.

Ten per cent., 25,589.05

Total,.....\$281,479.50

PLAN B.

Bulk-head of Aqueduct (at River).

As per Plan A,.....\$2,388.75

Earthen dam from island to north bank of river, 1,000.00

Dredging between island and north bank,..... 1,000.00

Amount carried forward,.....\$4,388.75

Amount brought forward,.....\$4,388.75

Conduit.

Earth excavation and refilling,.....	18,630 c. yds.	<i>a</i>	35..	6,520.50	
Brick masonry,	1,143	"	<i>a</i> 12.00..	13,716.00	
Concrete,	674	"	<i>a</i> 6.50..	4,381.00	
					24,317.50

Engine House, Chimney, &c.

As per Plan A,..... 25,000.00

Engines.

Two, each of 125 horse-power, including excavation and masonry for foundations, setting up, &c.,.. *a* \$60,000.00 120,000.00

Force Main.

2,700 feet 30-inch cast iron pipe, laid,.....*a* \$14.15 38,205.00

Engineering, Contingencies, and Omissions.

Ten per cent.,..... 21,191.13

Total,.....\$233,102.38

DIVISION II. RESERVOIR AND APPURTENANCES.

Reservoir.

Earth, excavated and relaid in embankment,...	139,104 c. yds.	<i>a</i>	.32..	\$44,513.28	
Puddling,.....	36,906	"	<i>a</i> .50..	18,453.00	
Concrete,.....	3,395	"	<i>a</i> 6.50..	22,067.50	
Slope wall, 15 inches thick,.....	10,335	"	<i>a</i> 7.50..	77,512.50	
Wall coping,.....	175	"	<i>a</i> 15.00..	2,625.00	

Amount carried forward,.....\$165,171.28

Amount brought forward,.....\$165,171.28

Influx Chamber.

Brick masonry,	60 c. yds. a 12.00..	720.00	
Rubble masonry,.....	108 " a 7.50..	810.00	
Ashlar masonry,.....	6 " a 15.00..	90.00	
Concrete,	18 " a 6.50..	117.00	
Brick house over chamber,.....		1,000.00	
288 feet 30-inch cast iron pipe,.....	a 14.15..	4,207.00	
			<u>6,944.00</u>

Aprons in front of Influx Pipes.

Stone masonry,.....	8 c. yds. a 15.00	120.00
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Efflux Chambers.

Brick masonry,.....	46 c. yds. a 12.00..	552.00	
Ashlar masonry,.....	9 " a 15.00..	135.00	
Concrete,	16 " a 6.50..	104.00	
120 feet 30-inch cast iron pipe,.....	a 14.15..	1,237.50	
			<u>2,028.50</u>

Engineering, Contingencies, and Omissions.

Ten per cent.	17,426.38
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Total,.....\$191,690.16

DIVISION III. DISTRIBUTION.

77,180 feet 6-inch wr't iron and cement pipe, laid, a 1.20	93,816.00
22,885 " 8 " " " " " " " a 1.61	36,844.85
6,745 " 12 " " " " " " " a 2.50	16,862.50
4,510 " 16 " cast " " " " " a 4.67	21,052.68
5,960 " 20 " " " " " " " a 7.47	44,522.99
Lowry hydrants, 100.....	a 100.00 10,000.00
Common " 30.....	a 30.00 900.00
Stop-cocks, 200, of various sizes,.....	12,500.00
House service pipe,.....	50,000.00
Engineering, contingencies, and omissions, ten per cent.,..	<u>28,649.90</u>

Total,.....\$315,148.92

COST OF WATER WORKS PER PLAN A.

Division 1,.....	\$281,479.50
“ 2,.....	191,690.16
“ 3,.....	<u>315,418.92</u>
Total cost of Works,.....	\$788,318.58

COST OF WATER WORKS PER PLAN B.

Division 1,.....	\$233,102.38
“ 2,.....	191,690.16
“ 3,.....	<u>315,148.92</u>
Total cost of Works,.....	\$739,941.46

COMPARISON OF PLANS A AND B.

As seen from the foregoing estimate, the construction of the works according to plan A, will involve an expenditure of \$48,377.12 more than if plan B were adopted. This is owing to the greater length of conduit and iron pipe required to convey the water from the Pawtucket Falls to the Engine House.

But while the cost of construction is greater, the cost of operation of plan A, or the high service, is less than that of the low service, as the engines, being of less power, and having less work to do, consume less coal. The consumption of coal may be estimated at three pounds per horse power, per hour; which is a sufficiently ample allowance to include the quantity wasted, used for banking fires, heating building, &c.

This, when the works are furnishing the whole estimated supply, would give a yearly consumption for the low service engines of 3,285,000 lbs., for the high service engines of 2,701,584 lbs., which, with coal at \$10 per ton of 2240 lbs., would give the yearly cost of fuel: for the low service

engines, \$14,665.18, and for the high service engines, \$12,060.64 — leaving a margin in favor of the latter, of \$2,604.54.

The cost of attendance, oil, &c., for the two services would differ so little as to be omitted from the comparison.

The yearly interest, at 6 per cent., of the \$48,377.12 excess of cost of plan A over plan B, is \$2,902.63, which, compared with the yearly excess of cost of pumping by plan B, shows a difference of but \$298.09, a sum so small that it may be entirely ignored, and the two plans compared by their intrinsic merits alone.

Plan B has the advantage of a shorter conduit, of which the cost of maintenance would probably be proportionately less, and by it we have but two instead of three mains to cross the Merrimack River, while the passage under the canals is entirely avoided. By adopting it we also avoid any possible question with the Locks and Canals Company concerning the supply of water. It has the disadvantage of a much greater lift from the engine house to the reservoir, and a longer force main, rendering the cost of maintenance of the engines and force main probably considerably greater than by plan A.

This cost of maintenance of the engines would probably be somewhat increased by the effect of the sediment conveyed in the water in times of freshet, a large portion of which in passing through the longer conduit of plan A, would be deposited before reaching the engines, and could readily be removed when its accumulation became troublesome. I do not, however, apprehend much difficulty from this source, as the reservoir, being full at the commencement of a freshet, could be drawn from for nearly three weeks without necessitating the use of the engines till the water of the river had nearly or entirely regained its wonted purity.

I, therefore, while inclined to favor the high service plan, respectfully refer both to the Committee for their consideration.

EXPENSES AND INCOME.

The yearly expense of the proposed works is made up of the cost of pumping, cost of maintenance of works, and interest upon the cost of construction.

The extent of the proposed works is so small, and their vulnerable points so few, that if properly built, the cost of maintenance should be very slight. It is believed that \$5,000 added to the cost of coal, will cover all the cost of pumping, attendance, collection and maintenance.

We shall then, basing our estimate upon the high service system, have

Interest on estimated cost of works, at 6 per cent.....	\$47,299.11
Cost of Pumping and Maintenance.....	17,060.64
	<hr/>
Total yearly expense.....	\$64,359.75

In our estimate of the probable income, we have to take into consideration the number of the inhabitants, and, to some extent, their occupations and habits.

The population numbers about 37,000, and, by the census of 1865, the number of dwelling houses was 5,324. Of this number of houses, it is not unreasonable to assume 3,500 as water takers. The results elsewhere show that in the business portions of the city, nearly all the stores, offices, &c.. can be reckoned upon.

The following estimate, based upon rates less than those of Boston, is therefore believed to be a fair one:—

ESTIMATED INCOME FROM WATER.

Av. Boston rents, 1853.	Classification of Water-tenants.	Income.
11.46	3500 dwellings, .....a 9.00	\$31,500.00
8.03	500 markets, stores, shops and offices “ 8.00	4,000.00
30.38	30 saloons,“ 12.00	360.00
	800 horses,“ 2.00	1,600.00
6.00	500 horse-power, steam-engines, ...“ 5.00	2,500.00
	Manufactories,“	1,500.00
56.50	6 bakeries,“ 30.00	180.00
5.00	200 bath-tubs and water-closets, ...“ 5.00	1,000.00
	City and County buildings, ...	800.00
		<hr/>
		\$43,440.00

In addition to the personal and direct use of the water, for which this amount is paid, the people derive a benefit from the additional security against fire, and the decreased expenses of the Fire Department. In the report of a Joint Special Committee upon introducing water into this city, it is stated (Dec. 12th, 1865): “Your Committee are of opinion that the introduction of water into the City, in sufficient quantity for use on all occasions of fire, would confer upon the inhabitants a direct pecuniary benefit in the reduced cost of the Fire Department, the saving of property, and the cost of insurance, equal to \$20,000 annually.”

In Boston, five years after the completion of the Cochituate Water Works, it was estimated that the direct saving in city expenses, in maintaining the fire department alone, was over \$51,000 per year.

In Hartford, the hydrants are regularly assessed, and the amount reported as a part of the income of the water works.

This is a benefit enjoyed by all, both water takers and non-consumers. The mere fact that water pipes are laid by a vacant lot, with the erection of hydrants in the vicinity, enhances the value of that property, as the presence of water would convert into desirable building sites, many locations otherwise nearly valueless. This benefit being conferred upon the public at large, why should it not be a legitimate source of income? Let the \$20,000 estimated as being saved, be collected and placed to the credit of the Water Works. This might be done in various ways. Assume that each land owner be assessed according to his frontage upon streets through which the water pipe is laid, and that the annual assessments be 10 cents per linear foot of frontage. The length of the distribution pipes, as proposed, will be 23 1-2 miles. Deducting for bridge crossings, public grounds, &c., take this length at 20 miles. This would give 211,200 linear feet of frontage on the mains, which, at 10 cents per foot, would produce an income of \$21,120.

Adding this to the income from water takers, we have a total annual income of \$64,560, which covers the annual expense, and makes the works self-supporting.

A sinking fund might also be provided for, by which the cost of construction could gradually be paid.

Of course during the first year or two, this estimated income would exceed that actually derived from the works, but during the same period the consumption of water and consequently the working expenses will be less.

To those who have resided in cities where the public water supply is abundant, there is no need of setting forth the advantages thereof; to others, and especially those who have good wells, they may be less apparent. I think it may be demonstrated that by the introduction of the Merrimack River Water into this city, the inhabitants would not only be benefitted pecuniarily, but the general health of the city improved.

The pecuniary gain would accrue from the lessening of the chances of loss by fire, reduction in the rates of insurance and the expenses of the Fire Department, and a diminution of the daily labor of procuring the water needed for household uses.

In this country, owing in a considerable measure to the general use of wood as a building material, fires, more or less destructive, are of frequent occurrence. Nearly every city can point back in its history to its "Great Fire." In many cities these have multiplied till they have to be designated by their dates. The recent disastrous conflagration at Portland, affords a warning that should not be allowed to pass unheeded. While a public water supply might not have entirely prevented this, it would probably have considerably restricted its ravages, as the experience of most cities shows that the damage from fire has been much diminished by the presence of an ample supply of water under pressure.

The introduction of water acts both as a preventive and as a cure, as it lessens the liability to loss by fire, and reduces the rates of insurance against such loss. This is alluded to by the Croton Water Board in their report for 1845,—“One fact, susceptible of the fullest demonstration, needs to be mentioned; that is, that every person that pays tax on real or personal estate, actually pays less money now than he did previous to the introduction of water; this arises from the reduction of the rates of insurance. The tax to defray the interest on the Croton Water Debt, is twenty cents per \$100. and the average reduction on the rates of insurance, is forty cents on the \$100.”

But the sanitary gain to a city, incident upon the introduction of water is fully as important as the pecuniary.

The medical profession are agreed concerning the great improvement in the health of the laboring classes which will result from a plentiful supply of water.

A Report of the Parliamentary Commissioners for inquiring into the state of large towns and populous districts, says, — “The result of our inquiries has convinced us that much disease and many of the inconveniences under which the poorer classes labor, may be alleviated by a plentiful supply of this great necessary of life.”

Many of the diseases common to large communities are greatly aggravated or mitigated by the quality of the water consumed. “The water required for domestic purposes should possess the following characteristics to the greatest extent, viz: softness, limpidity, equable temperature, purity, abundance, and convenient distribution.” The analysis of the Merrimack water shows that the qualities of softness and purity are possessed to a remarkable extent. Mr. Soyer, the eminent cook, says that soft water is absolutely necessary for *good* cooking, and that it requires barely half the time occupied by hard water for cooking vegetables and meats.

So long as the water is clear and cold, most persons are satisfied with it, ignorant of the fact that that very coldness conceals many impurities. However pure the waters of a well originally are, it is certain that in a populous city they must become contaminated by the noxious emanations from sewers, cess-pools, and privies, with which the ground, in time, becomes saturated.

In seasons of protracted drought, such as was experienced last summer, there are few wells whose delivery is not greatly diminished, while many fail altogether. In portions of this city, good well water cannot be obtained. How essential, then, that a never-failing supply of pure water should be brought within the reach of all.

It has been said that those citizens having good wells would not generally abandon them for the new supply. The same objection has been urged in every city where the subject

has been discussed, and in almost every instance experience has shown the contrary.

In conclusion, I may be allowed to congratulate the Committee, and the citizens of Lowell, upon the facility and comparative economy with which water works can be constructed here.

Few cities of the same size can construct works so compact, and yet affording a supply so abundant.

Before commencing upon these estimates, a circular letter was sent by His Honor the Mayor, to the Mayors or Chief Engineers of various cities where water works now exist.

In reply to these, letters, copies of reports, and other documents, from which much valuable information has been obtained, were received from Albany, Baltimore, Boston, Cambridge, Cleveland, Detroit, Louisville, Milwaukee, Montreal, New Bedford, Philadelphia, Rochester, St. Louis, Syracuse, Washington, and Worcester.

It is also proper to express here my obligations to the gentlemen in the office of the City Engineer, for valuable assistance rendered upon the surveys and drawings.

Respectfully submitted,

L. FRED'K RICE,

Civil Engineer.

LOWELL, August 20th, 1866.

APPENDIX.

A

Analysis of water taken from the Merrimack River, above
Pawtucket Falls.

HON. J. G. PEABODY,

Mayor of Lowell:

Sir — I received your note and a sample of water “from Merrimack River above Pawtucket Falls.” The sample was properly protected from air, and reached me in good condition.

The analysis you ordered has been made, and I have the honor of calling your attention to the principal features embraced in the results.

Physical Characters. After twelve hours’ repose this water was nearly colorless; a light yellowish brown tint being transmitted through a large volume. It was clear, and when agitated it sparkled and no increase in the depth of the tint was observed. In the matter suspended in the water were infusoria of the kinds found generally in both river and pond water in New England, with perhaps an excess in the proportion of growths allied to sponge. The sediment deposited by subsidence was composed of a mixture of sand, scaly forms of earth, spines of sponge, fibres of plants, and fine cementing material. Its specific gravity hardly varied from that of distilled water; the air dissolved in it compensating for the minute portion of saline matter present.

Chemical Characters. By the “soap test” it proved to be a “soft” water adapted to laundry purposes. This water represents pure water, containing the minute portion of mineral salts which rain water can dissolve from the rocky strata over which it has passed, either as it fell on the surface, or passed into the strata and escaped from springs. It will be seen that the salts are of such kind as are known to be present in rocks.

Besides mineral salts, this water contains such matter as water falling as rain can dissolve in the atmosphere: thus it dissolves gases and vapors, and it naturally holds in solution these gases. Forty-eight volumes of this water afford one volume of gases, composed of oxygen and nitrogen; only a mere trace of carbonic acid could be found. One hundred parts of these gases are made up of sixty-three parts of nitrogen, and thirty-seven parts of oxygen, and the limit of variation is sixty and forty. In a given volume, therefore, we find the mixed gases to contain nearly double as much oxygen as is contained in the same volume of air.

Important considerations flow from this fact of the presence of oxygen in a fluid form and in a relatively large proportion, compared with nitrogen, which acts as a diluent of oxygen in air.

1st. The power possessed by this water in sustaining animal and vegetable life, must be modified by this cause.

2nd. When this water is brought into contact with the common metals, the rapidity of its action in oxidating and corroding them must be greatly increased by the presence of oxygen in a fluid state.

This water holds in solution, also, some compounds derived from the slow oxidation of vegetable matter. These are the well known crenic and apocrenic compounds. The crenic salts attract oxygen and pass into apocrenic salts, and apocrenic salts of ammonia, in presence of animal matter, deposit carbon and return to the crenic state. Crenic salts can pass to carbonates, or, ammonia being present, to nitrates, presenting always a change of characters. The crenic salts may have several bases, or several proportions of one base, and hence they always exert a solvent action on metals and minerals. In the presence of dissolved oxygen the crenic and apocrenic salts in this water act to oxidize and dissolve the metals with which it may be in contact. Thus, it dissolves the ores of iron naturally and becomes colored, and it attacks cast or ductile iron, corroding and dissolving it, whatever may be its form. When the temperature of this water is maintained at 110° to 125° F. its corrosive action on iron becomes more rapid, and, as it is irregular, often confined to points or limited surfaces, quite thick plates of iron may be pierced, and rendered unserviceable in this way.

Below 80° F. or above 150° F. this action on metals is modified: at the natural temperatures the corrosion takes place slowly, while the water heated above 150° acts with extreme slowness. Hence this water cannot be safely retained in iron tanks or pipes at about 120° F. in consequence of a change of composition which takes place, but at the boiling point it does not act to corrode boilers more than rain water would. Practically, it is an excellent water for generating steam.

In its action on lead we may observe the same oxidizing and dissolving power as in the case of iron vessels containing this water, modified somewhat by the nature of one of the lead salts formed. When this water is in contact with a surface of metallic lead the dissolved oxygen of the water unites with the lead, and the crenic and apocrenic compounds enable it to dissolve and hold in solution the salts thus formed. On exposure to the air, and generally under the surface of the water, the salts of carbonic and sulphuric acid decompose the soluble crenic salts of lead, and incrustations of less soluble compounds take place on the corroded surface. The recently formed compounds of lead are soluble, and consequently, even after lead surfaces have been incrustated by carbonates and sulphates of lead, by the partial decomposition of the crenic compounds, the water may contain lead in solution.

The poisonous properties of the lead compounds formed in this way are well known. The observations on this water all prove that it corrodes and dissolves lead surfaces in contact perceptibly. These observations refer the corroding power to the chemical composition of the water, in which oxygen obeys the ordinary laws of combination and the acid bodies present exert their usual affinities; and they prove that risk to public and private health will result from the use of lead conduits or service pipes for conveying that portion of this water, which is to form part of food, or be consumed as a beverage.

Another substance found in this water appears in the form of a muilage, after it has been changed by the heat of evaporation. It doubtless is formed by changes effected in minute vegetable organisms, which can be seen under the microscope only. Although it then presents a certain volume, the whole weight of it contained in a gallon of the water is hardly perceptible.

On boiling this water in contact with air, its color becomes deeper and its transparency is lessened. As it evaporates, the diminished volume becomes turbid, and films cover the sides of the vessel. This change denotes a positive decomposition of compounds existing in the water: the crenate of iron becomes oxidized, and brown compounds of deutoxide and apocrenic or humic acid, give color to the deposits and remaining water. A portion of earthy and alkaline silicate is also deposited, causing considerable adhesion to the surface in contact. If the evaporation is continued, sulphate of lime mixes with the deposit, the fluid reduced to a small volume becomes brown colored, and finally alkaline salts appear.

By rapid boiling under a constant supply of fresh water as in forming steam, the matter which would adhere when evaporation takes place,

remains suspended in the water, acquires a deep brown color, contracts and in part disappears; especially when the water boils under pressure.

Like all soft waters, this water contains many forms of life in low organizations, belonging on the ill defined line which separates animal from vegetable life. They act as agents of purification, removing or changing matter which without them would become offensive. In river water the equilibrium is maintained between the production of the food which the organisms consume, and their number, better than in the case of pond waters, where disturbances affecting the odor and taste of the water occur.

River water protected from pollution of an obvious kind, is also purified by contact with atmospheric air, with which it mixes at every obstruction, rapid, or fall. The effect of such exposure is, to induce chemical changes in the composition of any foul matters dissolved or suspended, and to convert them into gaseous, or insoluble substances, and thus to remove them from the clear water.

Analysis. The analytical experiments were made on one U. S. Standard Gallon of the water in determining the weight of the substances, while a similar proportion was consumed in observations on the character of the water and its contents.

One gallon of this water, afforded solid matter, rendered stable at 212° F. one grain and ninety-one hundredths of a grain, consisting of

Silica.....	0.36
Sulphate of Lime.....	0.74
Deutoxide of Iron.....	0.19
Chloride of Sodium.....	0.31
Sulphate of Soda.....	0.08
Sulphate of Magnesia.....	0.12
Nitrate of Ammonia, Crenic and Apocrenic acids, vegetable extract..	0.11
	<hr/> 1.91

When we operate on Coehituate Lake water in the same way, the weight of solid matter in one gallon varies from 3 to 3½ grains and the purest water used for public supply is that of Loch Katrine in the Highlands of Scotland, affording 2.08 to 2.40 grains of matter dried at 212° F.

It will be noticed in the results here given, that the Merrimack River water at the point where the sample was taken, is remarkable for its purity and general excellence when compared with the purest waters, supplied for town consumption. These results demonstrate the almost marvelous power of purification gained by water in motion exposed to air. The water of

Loch Katrine is possibly in part afforded by springs, but is nearly wholly rain water, which almost daily falls on a surface clothed with vegetation, so frequently washed as to impart little ponderable matter to the water. On the other hand, the Merrimack River, some miles above the point of supply, daily receives a large quantity of substances, of kinds easily detected if they existed in the water below, but which by a series of decompositions and changes, are removed and mixed with the silt, or made to form solid aggregates of a permanent character.

In the course of a careful investigation, no substance of a noxious or offensive character has been discovered in this water, and the experiments have all favored the conclusion that it is well adapted to constitute the supply for city consumption.

Respectfully,

A. A. HAYES, M. D.,

State Assayer.

S. DANA HAYES, *Chemist.*

B.

Analysis of Water taken from Beaver Brook, below the Merrimack Mills.

20 STATE STREET, BOSTON, }
21st of July, 1866. }

J. G. PEABODY, Esq.,

Mayor of Lowell:

SIR: — The sample of water received from you has been analyzed to the required extent.

1 gallon (U. S. standard) afforded $3.\overset{64}{\underset{00}{100}}$ grs. of solid matter dried at 212° F.

$1.\overset{70}{\underset{00}{100}}$ gr. was insoluble in small volume of water, and consisted of sulphate of lime, silicate of lime, apocrenate and humate of iron and sand.

$1.\overset{94}{\underset{00}{100}}$ gr. soluble, was slightly colored by humate of ammonia, and contains chloride of sodium, sulphate of soda; mere traces of chloride of magnesium.

There are suspended flocculi in the water, but it corresponded closely with Cochituate water, as drawn from the mains here, and may be used for city supply.

Respectfully,

A. A. HAYES, M. D.,

State Assayer.

C.

Analysis of Water taken from the Merrimack River, nearly
opposite the Lawrence Mills, between the Island
and the north bank of the River.

20 STATE STREET, BOSTON, }
18th August, 1866. }

HON. J. G. PEABODY,

Mayor of Lowell:

SIR: — A sample of water from a point “above the factories of the Lawrence Company,” has been analyzed.

1 gallon (U. S. standard) afforded $2.\frac{24}{100}$ grs. of dry matter at 212° F.

This consisted of nearly one-half difficultly soluble matter, become solid in the operation, and one-half soluble salts.

The less soluble part was silicate and humate of oxide of iron and lime, sulphate of lime, and ulmic compounds,—as insoluble organic matter.

In the soluble part, I found sulphate of soda, chloride of sodium, crenate of ammonia and humic compounds soluble. No noxious matter could be found, and excepting more organic compounds, this water agrees generally with the first sample analyzed.

Respectfully,

A. A. HAYES, M. D.,

State Assayer.

PLANS of the proposed Water Works may be seen at the City Clerk's office, Government Building.

CITY DOCUMENT.

CITY OF LOWELL.



ANNUAL REPORT

OF THE

Directors of the City Library,

For the Year 1867.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, Dec. 24, 1867.

Read and sent to the Common Council.

JOHN H. McALVIN, City Clerk.

IN COMMON COUNCIL, Dec. 24, 1867.

Received and read.

GEO. GARDNER, Clerk Common Council.

Knapp & Morey, Prs.

REPORT.

DIRECTORS' ROOM, CITY LIBRARY, }
Lowell, December 16th, 1867. }

TO THE CITY COUNCIL:

The Directors of the City Library, in conformity with the requirements of the City Ordinances, herewith respectfully submit their Annual Report of receipts and expenditures for the current year, together with the present condition of the institution.

RECEIPTS.

Balance undrawn, January 1st, 1867,.....	\$ 567 85
Appropriation,.....	1,500 00
Subscriptions,.....	537 50
Sale of Catalogues,.....	48 65
Fines,.....	22 90
Sale of old paper,.....	8 12
Books lost,.....	1 00
	<hr/>
	\$2,686 02

EXPENDITURES.

Salary of Librarian,.....	\$ 900 00
Books for circulation,.....	1,040 91
Blank Books and Stationery,.....	24 75
Binding,.....	224 38
Manila Paper for covering books,.....	37 68
Printing,.....	63 30
Postage and Expressage,.....	14 80
	<hr/>
	\$2,305 82
Balance undrawn,.....	380 20

 CONDITION OF THE LIBRARY.

Volumes added by purchase during the year,.....	452
Volumes added by donation,.....	82
Whole number added,.....	534
Volumes in Library, as per last report,.....	12,680
Present number of volumes,.....	13,214
Volumes lost and not paid for,.....	7
Estimated value of the same,.....	\$3,50
New subscribers during the year,.....	510
Non-resident subscribers,.....	17
Whole number of subscribers,.....	1,129
Number of volumes delivered,.....	48,825
Average daily number delivered,.....	181

It will be observed that there has been added to the Library, one hundred per cent. more volumes in this, than the preceding year, thanks to the liberality of your honorable body, and the kindness of Hon. Geo. S. Boutwell, and others, whose names appear in connection with this report.

Your Directors have been governed by the request of the patrons of the Library, in a great measure, in the expenditure of your appropriations, at all times exercising great care in rejecting works of a doubtful moral tendency.

Many valuable standard works have been added to the Library during the year, but a majority of the books purchased, for the reasons before stated, may be classed as belonging to the "literature of the day."

One of the first subjects which engaged the attention of your Directors, was the great and growing importance of a change in the locality, and further accommodations for the Library. It is a matter which demands your most careful consideration and attention. Here is an institution owing its existence to, and dependent upon the generous bounty of the city, having upon its shelves

upwards of thirteen thousand volumes, many of them of great value, with its doors open wide to every inhabitant of this large city, under proper restrictions and the payment of the nominal sum of fifty cents per annum. Any one would naturally suppose that our people would, to a great extent, hasten to avail themselves of the privileges here afforded.

From the records we glean the following statement of the patronage extended to the Library :

There were, in 1858.....	769 subscribers.
“ in 1859.....	725 “
“ in 1860.....	1,339 “
“ in 1861.....	874 “
“ in 1862.....	733 “
“ in 1863.....	835 “
“ in 1864.....	1,013 “
“ in 1865.....	1,290 “
“ in 1866.....	1,397 “
“ in 1867.....	1,129 “
	<hr/>
	10,104 “

Making an average of about one in forty of the population.

Your Directors believe that the location and means of access are open to grave objections by our citizens, many of whom would gladly hasten to patronize the Library if these objections could be obviated. Again, complaint is made that the apartments are cramped and poorly lighted.

We believe that the wisdom of its founders intended this institution to be an instrument of great good in this community, and by extending the sphere of its usefulness by making it more accessible, and thus causing it to be more generally patronized, you will the better accomplish the end in view, and we shall continue to take pride in this noble institution.

The attention of your predecessors has been frequently called to the consideration of making the Library absolutely free to the community. Whether, at the present time, and in this connection it would be expedient to recommend this to your honorable body, your Directors are unable to determine.

The present board of Directors concur in the recommendation of their immediate predecessors, that the best interests of the City and of the Library would be subserved by a change in the Ordinances relating to the City Library so as to provide that the Directors shall be elected to serve two years instead of one, and one-half of the board to retire annually.

The Directors, in this connection, desire to express their strong commendations of the manner in which your Librarian, Mr. Geo. C. Edwards, has conducted the business incumbent upon him, and of the faithfulness and assiduity which he has brought to the performance of his duties.

LIST OF DONORS TO THE LIBRARY.	Books.	Pamphlets.
Allen, Nathan, M. D.,.....	1	
Boutwell, Hon. Geo. S.,.....	64	22
Chase, A. S.,.....	4	
Chase, C. C., Esq.,.....		1
City of Lowell,.....	1	
City Library, Springfield, Mass.,.....		1
Cushing, Hon. Caleb,.....	1	1
Edson, Theodore, D. D.,.....	1	
Howard, Maj. Gen. O. O.,.....	1	
Jewett, A. F. Esq.,.....	1	
Mercantile Library Association, Boston, Mass.,....		1
Mercantile Library Association, Philadelphia, Penn.,		1
Mercantile Library Association, San Francisco, Cal.,		1
Providence Athenæum,.....		1
Public Library, Boston, Mass.,.....		1
Public Library, Manchester, N. H.,.....		1
Public Library, New Bedford, Mass.,.....		1
Public Library, Taunton, Mass.,.....		1
Public Library, Waltham, Mass.,.....		2
Public Library, Worcester, Mass.,.....		1
Rensselaer Polytechnic Institute, Troy, N. Y.,.....		1
Secretary of Interior, Washington, D. C.,.....	4	
Sibley, John L., A. M., Cambridge, Mass.,.....		1
Sumner, Hon. Charles,.....		3
United States Sanitary Commission,.....	3	
Wilson, Hon. H.,.....	1	
Wood, Rev. Horatio,.....		1
Young Men's Association, Buffalo, N. Y.,.....		1
Total,	82	43

All of which is respectfully submitted.

GEORGE F. RICHARDSON,
 GUSTAVUS A. GERRY,
 LEWIS L. PERRIN,
 CHESTER W. RUGG,
 HENRY P. PERKINS,
 CHARLES KIMBALL,
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